



CONTAINS NO CBI

Tempe Lab

Form Approved
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EPA-OTS



000611917P

90-900000011

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Comprehensive Assessment Information Rule
REPORTING FORM

89 OCT 11 AM 11:05
U.S. DEPT. OF AGRICULTURE
WASHINGTON, D.C.

When completed, send this form to:

Document Processing Center
Office of Toxic Substances, TS-790
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460
Attention: CAIR Reporting Office

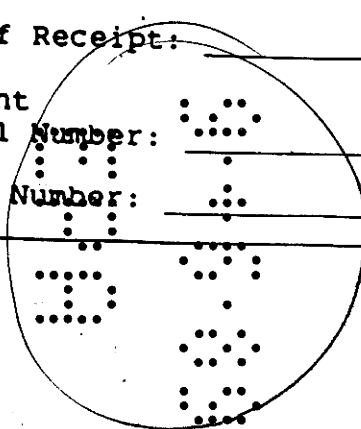
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Docket Number: _____

EPA Form 7710-52



SECTION 1 GENERAL MANUFACTURER, IMPORTER, AND PROCESSOR INFORMATION

PART A GENERAL REPORTING INFORMATION

1.01 This Comprehensive Assessment Information Rule (CAIR) Reporting Form has been completed in response to the Federal Register Notice of..... ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
 CBI Not Applicable - notified by supplier mo. day year

☐ a. If a Chemical Abstracts Service Number (CAS No.) is provided in the Federal Register, list the CAS No. 026471-62-5

b. If a chemical substance CAS No. is not provided in the Federal Register, list either (i) the chemical name, (ii) the mixture name, or (iii) the trade name of the chemical substance as provided in the Federal Register.

(i) Chemical name as listed in the rule Not Applicable

(ii) Name of mixture as listed in the rule Not Applicable

(iii) Trade name as listed in the rule Not Applicable

c. If a chemical category is provided in the Federal Register, report the name of the category as listed in the rule, the chemical substance CAS No. you are reporting on which falls under the listed category, and the chemical name of the substance you are reporting on which falls under the listed category.

Name of category as listed in the rule Not Applicable

CAS No. of chemical substance ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Name of chemical substance Not Applicable

1.02 Identify your reporting status under CAIR by circling the appropriate response(s).

CBI Manufacturer 1

☐ Importer 2

Processor 3

X/P manufacturer reporting for customer who is a processor 4

X/P processor reporting for customer who is a processor 5

☐ Mark (X) this box if you attach a continuation sheet.

- 1.03 Does the substance you are reporting on have an "x/p" designation associated with it in the above-listed Federal Register Notice? **Not Applicable**
- CBI
- ☐ Yes ☐ Go to question 1.04
- ☐ No ☐ Go to question 1.05

- 1.04 a. Do you manufacture, import, or process the listed substance and distribute it under a trade name(s) different than that listed in the Federal Register Notice? Circle the appropriate response. **Not Applicable**
- CBI
- ☐ Yes 1
- ☐ No 2

b. Check the appropriate box below:

☐ You have chosen to notify your customers of their reporting obligations

Provide the trade name(s)

☐ You have chosen to report for your customers

☐ You have submitted the trade name(s) to EPA one day after the effective date of the rule in the Federal Register Notice under which you are reporting.

- 1.05 If you buy a trade name product and are reporting because you were notified of your reporting requirements by your trade name supplier, provide that trade name.

CBI

Trade name Ablebond 908-3

☐

Is the trade name product a mixture? Circle the appropriate response.

Yes ☒ 1

No 2

- 1.06 Certification -- The person who is responsible for the completion of this form must sign the certification statement below:

CBI

☐ "I hereby certify that, to the best of my knowledge and belief, all information entered on this form is complete and accurate."

Robert W. Hardy
NAME

Robert W. Hardy
SIGNATURE

August 31, 1989
DATE SIGNED

Group Manager, Environmental Affairs (602)
TITLE

441 - 2944
TELEPHONE NO.

☐ Mark (X) this box if you attach a continuation sheet.

1.03 Does the substance you are reporting on have an "x/p" designation associated with it in the above-listed Federal Register Notice? Not Applicable
CBI
☐ Yes ☐ Go to question 1.04
☐ No ☐ Go to question 1.05

1.04 a. Do you manufacture, import, or process the listed substance and distribute it under a trade name(s) different than that listed in the Federal Register Notice? Circle the appropriate response. Not Applicable
CBI
☐ Yes 1
☐ No 2

b. Check the appropriate box below:

☐ You have chosen to notify your customers of their reporting obligations
Provide the trade name(s)

☐ You have chosen to report for your customers

☐ You have submitted the trade name(s) to EPA one day after the effective date of the rule in the Federal Register Notice under which you are reporting.

1.05 If you buy a trade name product and are reporting because you were notified of your reporting requirements by your trade name supplier, provide that trade name.

CBI
☐ Trade name Ablebond 908-3

Is the trade name product a mixture? Circle the appropriate response.

Yes ①

No 2

1.06 Certification -- The person who is responsible for the completion of this form must sign the certification statement below:

CBI
☐ "I hereby certify that, to the best of my knowledge and belief, all information entered on this form is complete and accurate."

Robert W. Hardy
NAME

Robert W. Hardy
SIGNATURE

August 31, 1989
DATE SIGNED

Group Manager, Environmental Affairs (602)
TITLE

441 - 2944
TELEPHONE NO.

☐ Mark (X) this box if you attach a continuation sheet.

- 1.07 Exemptions From Reporting -- If you have provided EPA or another Federal agency with the required information on a CAIR Reporting Form for the listed substance within the past 3 years, and this information is current, accurate, and complete for the time period specified in the rule, then sign the certification below. You are required to complete section 1 of this CAIR form and provide any information now required but not previously submitted. Provide a copy of any previous submissions along with your Section 1 submission.

"I hereby certify that, to the best of my knowledge and belief, all required information which I have not included in this CAIR Reporting Form has been submitted to EPA within the past 3 years and is current, accurate, and complete for the time period specified in the rule."

_____ NAME	_____ SIGNATURE	_____ DATE SIGNED
_____ TITLE	(_____) _____ TELEPHONE NO.	_____ DATE OF PREVIOUS SUBMISSION

- 1.08 CBI Certification -- If you have asserted any CBI claims in this report you must certify that the following statements truthfully and accurately apply to all of those confidentiality claims which you have asserted.

CBI

- ☐ "My company has taken measures to protect the confidentiality of the information, and it will continue to take these measures; the information is not, and has not been, reasonably ascertainable by other persons (other than government bodies) by using legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding) without my company's consent; the information is not publicly available elsewhere; and disclosure of the information would cause substantial harm to my company's competitive position."

_____ NAME	_____ SIGNATURE	_____ DATE SIGNED
_____ TITLE	(_____) _____ TELEPHONE NO.	

☐ Mark (X) this box if you attach a continuation sheet.

PART: B CORPORATE DATA

1.09 Facility Identification

CBI Name MIDTIRIO LA I DIC

[] Address 2100 E ELLIOT RD Street

[illegible]

(A) (Z) (8) (5) (2) (8) (2) -- () () () ()
State 21p

Dun & Bradstreet Number(14)-(975)-(6641)

EPA ID Number(9|8|1|5|2|7|0|3|4|

Employer ID Number [3] [6] [1] [1] [1] [5] [8] [0]

Primary Standard Industrial Classification (SIC) Code[3][6][6][3]

Other SIC Code (3) (8) (1) (3)

Other SIC Code (3) (9) (2) (9)

1.10 Company Headquarters Identification

CBI Name M O T O R O L A I N C

Address 1303 E 460 N 11th Street

[S][C][H][A][U][H][R][U][P][G][][][][][][][][][][][][][][][][]
City

State Zip

Dun & Bradstreet Number[0][0]-[7][3][2]-[5][4][6][3]

Employer ID Number (3) (6) (1) (1) (1) (5) (8) (0)

☐ Mark (X) this box if you attach a continuation sheet.

[illegible]

CBI Name [G][L][O][R][I][A][] [G][O][W][A][N][] [] [] [] [] [] [] [] [] [] [] [] []
[] Title [E][D][U][I][T][I][O][N][M][E][N][T][A][L][] [E][N][G][I][N][E][E][R][] [] [] [] [] [] [] [] [] [] [] [] []
Address [8][2][0][1][] [E][] [H][C][D][O][W][E][L][L][] [] [] [] [] [] [] [] [] [] [] [] []
Street
[S][C][O][T][T][S][D][A][L][E][] [] [] [] [] [] [] [] [] [] [] [] []
City
[7][2][] [8][5][2][5][2]--[1][4][1][2]
State Zip
Telephone Number [6][0][2]-[4][4][1]-[2][5][9][4]

☐ Mark (X) this box if you attach a continuation sheet.

1.14 Facility Acquired -- If you purchased this facility during the reporting year, provide the following information about the seller:

Not Applicable

[illegible]

() Mailing Address () () () () () () () () () () () () () () () ()

Street

[illegible]

City

() () () () () () () -- () () () ()
State Zip

State

Zip

Employer ID Number() () () () () () () ()

Date of Sale () () () ()
Mo. Day Year

Mo.

Da v

Year

[illegible]

Telephone Number() () () -() () () -() () ()

1.15 Facility Sold -- If you sold this facility during the reporting year, provide the following information about the buyer:

Not Applicable

[illegible][illegible]

Street

[]

City

State Zip

State

Zid

Employer ID Number() () () () () () () ()

Date of Purchase ([] []) ([] []) ([] [])
Mo. Day Year

No.

Da v

Year

[illegible]

Telephone Number() () () -() () () -() () ()

☐ Mark (X) this box if you attach a continuation sheet.

1.16 For each classification listed below, state the quantity of the listed substance that was manufactured, imported, or processed at your facility during the reporting year.

CBI

☐

Classification

Quantity (kg/yr)

Manufactured 0

Imported 0

Processed (include quantity repackaged) 1.3

Of that quantity manufactured or imported, report that quantity:

In storage at the beginning of the reporting year NA*

For on-site use or processing NA

For direct commercial distribution (including export) NA

In storage at the end of the reporting year NA

Of that quantity processed, report that quantity:

In storage at the beginning of the reporting year 0

Processed as a reactant (chemical producer) 0

Processed as a formulation component (mixture producer) 0

Processed as an article component (article producer) 1.3

Repackaged (including export) 0

In storage at the end of the reporting year 0

* NA means Not Applicable

☐ Mark (X) this box if you attach a continuation sheet.

PART C IDENTIFICATION OF MIXTURES

- 1.17 Mixture -- If the listed substance on which you are required to report is a mixture or a component of a mixture, provide the following information for each component chemical. (If the mixture composition is variable, report an average percentage of each component chemical for all formulations.)

CBI

PE-10 Part A

[]

Component Name	Supplier Name	Average % Composition by Weight (specify precision, e.g., 45% ± 0.5%)
Toluene Diisocyanate	Isofoam Systems	60 ± NA
TDI Prepolymers	Isofoam Systems	40 ± NA
		100 ± NA
		Total 100%

[] Mark (X) this box if you attach a continuation sheet.

PART C IDENTIFICATION OF MIXTURES

- 1.17 Mixture -- If the listed substance on which you are required to report is a mixture or a component of a mixture, provide the following information for each component chemical. (If the mixture composition is variable, report an average percentage of each component chemical for all formulations.)

CBI

Ablebond 908-3

☐

Component Name	Supplier Name	Average % Composition by Weight (specify precision, e.g., 45% \pm 0.5%)
Toluene Diisocyanate	Ablest: K	$<1 \pm$ NA
Magnesium Oxide Filler	Ablest: K	$75 \pm$ NA
Prepolymer	Ablest: K	$12.5 \pm$ NA
Polyol	Ablest: K	$12.5 \pm$ NA
Total		100%

☐ Mark (X) this box if you attach a continuation sheet.

2.04 State the quantity of the listed substance that your facility manufactured, imported, or processed during the 3 corporate fiscal years preceding the reporting year in descending order.

CBI

☐ Year ending [1][2] [8][7]
Mo. Year

Quantity manufactured NA* kg

Quantity imported NA kg

Quantity processed UK kg

Year ending [1][2] [8][6]
Mo. Year

Quantity manufactured NA kg

Quantity imported NA kg

Quantity processed UK kg

Year ending [1][2] [8][5]
Mo. Year

Quantity manufactured NA kg

Quantity imported NA kg

Quantity processed UK kg

2.05 Specify the manner in which you manufactured the listed substance. Circle all appropriate process types. NA

CBI

☐ Continuous process 1

Semicontinuous process 2

Batch process 3

* NA means not Applicable

☐ Mark (X) this box if you attach a continuation sheet.

2.06 Specify the manner in which you processed the listed substance. Circle all appropriate process types.

☐

Continuous process 1

Semicontinuous process 2

Batch process ③

2.07 State your facility's name-plate capacity for manufacturing or processing the listed substance. (If you are a batch manufacturer or batch processor, do not answer this question.)

☐

Manufacturing capacity NA* kg/yr

Processing capacity NA kg/yr

2.08 If you intend to increase or decrease the quantity of the listed substance manufactured, imported, or processed at any time after your current corporate fiscal year, estimate the increase or decrease based upon the reporting year's production volume.

☐

	Manufacturing Quantity (kg)	Importing Quantity (kg)	Processing Quantity (kg)
Amount of increase	<u>NA</u>	<u>NA</u>	<u>UK</u>
Amount of decrease	<u>NA</u>	<u>NA</u>	<u>UK</u>

* NA means not applicable.

☐ Mark (X) this box if you attach a continuation sheet.

- 2.09 For the three largest volume manufacturing or processing process types involving the listed substance, specify the number of days you manufactured or processed the listed substance during the reporting year. Also specify the average number of hours per day each process type was operated. (If only one or two operations are involved, list those.)

CBI

☐

Days/Year Average
Hours/Day

Process Type #1 (The process type involving the largest quantity of the listed substance.)

Manufactured	<u>NA*</u>	<u>NA</u>
Processed	<u>32</u>	<u>2.5</u>

Process Type #2 (The process type involving the 2nd largest quantity of the listed substance.)

Manufactured	<u>NA</u>	<u>NA</u>
Processed	<u>4</u>	<u>1</u>

Process Type #3 (The process type involving the 3rd largest quantity of the listed substance.)

Manufactured	<u>NA</u>	<u>NA</u>
Processed	<u>NA</u>	<u>NA</u>

- 2.10 State the maximum daily inventory and average monthly inventory of the listed substance that was stored on-site during the reporting year in the form of a bulk chemical. *Not Required*

CBI

☐

Maximum daily inventory kg

Average monthly inventory kg

* NA means not applicable

☐ Mark (X) this box if you attach a continuation sheet.

- 2.11 Related Product Types -- List any byproducts, coproducts, or impurities present with the listed substance in concentrations greater than 0.1 percent as it is manufactured, imported, or processed. The source of byproducts, coproducts, or impurities means the source from which the byproducts, coproducts, or impurities are made or introduced into the product (e.g., carryover from raw material, reaction product, etc.).

CBI

☐

<u>CAS No.</u>	<u>Chemical Name</u>	<u>Byproduct, Coproduct or Impurity¹</u>	<u>Concentration (%) (specify \pm % precision)</u>	<u>Source of By-products, Coproducts, or Impurities</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

¹Use the following codes to designate byproduct, coproduct, or impurity:

B = Byproduct
C = Coproduct
I = Impurity

☐ Mark (X) this box if you attach a continuation sheet.

- 2.12 Existing Product Types -- List all existing product types which you manufactured, imported, or processed using the listed substance during the reporting year. List the quantity of listed substance you use for each product type as a percentage of the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to the instructions for further explanation and an example.)

CBI

☐

a. Product Types ¹	b. % of Quantity Manufactured, Imported, or Processed	c. % of Quantity Used Captively On-Site	d. Type of End-Users ²
L	99.5	100	H
K	0.5	100	H

¹Use the following codes to designate product types:

A = Solvent	L = Moldable/Castable/Rubber and additives
B = Synthetic reactant	M = Plasticizer
C = Catalyst/Initiator/Accelerator/ Sensitizer	N = Dye/Pigment/Colorant/Ink and additives
D = Inhibitor/Stabilizer/Scavenger/ Antioxidant	O = Photographic/Reprographic chemical and additives
E = Analytical reagent	P = Electrodeposition/Plating chemicals
F = Chelator/Coagulant/Sequestrant	Q = Fuel and fuel additives
G = Cleanser/Detergent/Degreaser	R = Explosive chemicals and additives
H = Lubricant/Friction modifier/Antiwear agent	S = Fragrance/Flavor chemicals
I = Surfactant/Emulsifier	T = Pollution control chemicals
J = Flame retardant	U = Functional fluids and additives
K = Coating/Binder/Adhesive and additives	V = Metal alloy and additives
	W = Rheological modifier
	X = Other (specify) _____

²Use the following codes to designate the type of end-users:

I = Industrial	CS = Consumer
CM = Commercial	H = Other (specify) <u>Government</u>

☐ Mark (X) this box if you attach a continuation sheet.

- 2.13 Expected Product Types -- Identify all product types which you expect to manufacture, import, or process using the listed substance at any time after your current corporate fiscal year. For each use, specify the quantity you expect to manufacture, import, or process for each use as a percentage of the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to the instructions for further explanation and an example.)

CBI

☐

a.	b.	c.	d.
Product Types ¹	% of Quantity Manufactured, Imported, or Processed	% of Quantity Used Captively On-Site	Type of End-Users ²
UK	UK	UK	UK

¹Use the following codes to designate product types:

A = Solvent	L = Moldable/Castable/Rubber and additives
B = Synthetic reactant	M = Plasticizer
C = Catalyst/Initiator/Accelerator/ Sensitizer	N = Dye/Pigment/Colorant/Ink and additives
D = Inhibitor/Stabilizer/Scavenger/ Antioxidant	O = Photographic/Reprographic chemical and additives
E = Analytical reagent	P = Electrodeposition/Plating chemicals
F = Chelator/Coagulant/Sequestrant	Q = Fuel and fuel additives
G = Cleanser/Detergent/Degreaser	R = Explosive chemicals and additives
H = Lubricant/Friction modifier/Antiwear agent	S = Fragrance/Flavor chemicals
I = Surfactant/Emulsifier	T = Pollution control chemicals
J = Flame retardant	U = Functional fluids and additives
K = Coating/Binder/Adhesive and additives	V = Metal alloy and additives
	W = Rheological modifier
	X = Other (specify) _____

²Use the following codes to designate the type of end-users:

I = Industrial	CS = Consumer
CM = Commercial	H = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

2.14 Final Product -- Complete the following table for each type of final product manufactured, imported, or processed at your facility that contains the listed substance other than as an impurity.

CBI

☐

a.

b.

The final product does not contain the listed substance. Not Applicable

Product Type ¹	Final Product's Physical Form ²	Average % Composition of Listed Substance in Final Product	Type of End-Users ³

¹Use the following codes to designate product types:

A = Solvent	L = Moldable/Castable/Rubber and additives
B = Synthetic reactant	M = Plasticizer
C = Catalyst/Initiator/Accelerator/Sensitizer	N = Dye/Pigment/Colorant/Ink and additives
D = Inhibitor/Stabilizer/Scavenger/Antioxidant	O = Photographic/Reprographic chemical and additives
E = Analytical reagent	P = Electrodeposition/Plating chemicals
F = Chelator/Coagulant/Sequestrant	Q = Fuel and fuel additives
G = Cleanser/Detergent/Degreaser	R = Explosive chemicals and additives
H = Lubricant/Friction modifier/Antiwear agent	S = Fragrance/Flavor chemicals
I = Surfactant/Emulsifier	T = Pollution control chemicals
J = Flame retardant	U = Functional fluids and additives
K = Coating/Binder/Adhesive and additives	V = Metal alloy and additives
	W = Rheological modifier
	X = Other (specify) _____

²Use the following codes to designate the final product's physical form:

A = Gas	F2 = Crystalline solid
B = Liquid	F3 = Granules
C = Aqueous solution	F4 = Other solid
D = Paste	G = Gel
E = Slurry	H = Other (specify) _____
F1 = Powder	

³Use the following codes to designate the type of end-users:

I = Industrial	CS = Consumer
CH = Commercial	H = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

2.15 Circle all applicable modes of transportation used to deliver bulk shipments of the
CBI listed substance to off-site customers. Not Applicable

- ☐ Truck 1
Railcar 2
Barge, Vessel 3
Pipeline 4
Plane 5
Other (specify) 6

2.16 Customer Use -- Estimate the quantity of the listed substance used by your customers
or prepared by your customers during the reporting year for use under each category
CBI of end use listed (i-iv). Not Applicable

☐

Category of End Use

i. Industrial Products

Chemical or mixture kg/yr

Article kg/yr

ii. Commercial Products

Chemical or mixture kg/yr

Article kg/yr

iii. Consumer Products

Chemical or mixture kg/yr

Article kg/yr

iv. Other

Distribution (excluding export) kg/yr

Export kg/yr

Quantity of substance consumed as reactant kg/yr

Unknown customer uses kg/yr

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 3 PROCESSOR RAW MATERIAL IDENTIFICATION

PART A GENERAL DATA

- 3.01 Specify the quantity purchased and the average price paid for the listed substance for each major source of supply listed. Product trades are treated as purchases.
CBI The average price is the market value of the product that was traded for the listed substance.

☐

<u>Source of Supply</u>	<u>Quantity (kg)</u>	<u>Average Price (\$/kg)</u>
The listed substance was manufactured on-site.	NA*	NA
The listed substance was transferred from a different company site.	NA	NA
The listed substance was purchased directly from a manufacturer or importer.	NA	NA
The listed substance was purchased from a distributor or repackager.	NA	NA
The listed substance was purchased from a mixture producer.	20.4 **	13.55

- 3.02 Circle all applicable modes of transportation used to deliver the listed substance to your facility.

CBI

☐

- Truck ①
 Railcar 2
 Barge, Vessel 3
 Pipeline 4
 Plane 5
 Other (specify) 6

* NA means not applicable

** Quantity of mixture

☒ Mark (X) this box if you attach a continuation sheet.

SECTION 3 PROCESSOR RAW MATERIAL IDENTIFICATION

PART A GENERAL DATA

- 3.01 Specify the quantity purchased and the average price paid for the listed substance for each major source of supply listed. Product trades are treated as purchases.
 CBI The average price is the market value of the product that was traded for the listed substance.

☐

Source of Supply

The listed substance was manufactured on-site.

Quantity (kg)	Average Price (\$/kg)
NA*	NA
NA	NA
NA	NA
NA	NA
0.59	50.12

The listed substance was transferred from a different company site.

The listed substance was purchased directly from a manufacturer or importer.

The listed substance was purchased from a distributor or repackager.

The listed substance was purchased from a mixture producer.

- 3.02 Circle all applicable modes of transportation used to deliver the listed substance to your facility.

☐

- Truck 1
 Railcar 2
 Barge, Vessel 3
 Pipeline 4
 Plane 5
 Other (specify) 6

* NA means not applicable

☐ Mark (X) this box if you attach a continuation sheet.

3.03 a. Circle all applicable containers used to transport the listed substance to your facility.
CBI

☐

- Bags 1
Boxes 2
Free standing tank cylinders 3
Tank rail cars 4
Hopper cars 5
Tank trucks 6
Hopper trucks 7
Drums 8
Pipeline 9
Other (specify) Can (10)

b. If the listed substance is transported in pressurized tank cylinders, tank rail cars, or tank trucks, state the pressure of the tanks. Not Applicable

Tank cylinders — mmHg
Tank rail cars — mmHg
Tank trucks — mmHg

☒ Mark (X) this box if you attach a continuation sheet.

3.03 a. Circle all applicable containers used to transport the listed substance to your facility.
CBI

☐

Bags 1
Boxes 2
Free standing tank cylinders 3
Tank rail cars 4
Hopper cars 5
Tank trucks 6
Hopper trucks 7
Drums 8
Pipeline 9
Other (specify) Syringes 10

b. If the listed substance is transported in pressurized tank cylinders, tank rail cars, or tank trucks, state the pressure of the tanks. Not Applicable

Tank cylinders 1 mmHg
Tank rail cars 1 mmHg
Tank trucks 1 mmHg

☐ Mark (X) this box if you attach a continuation sheet.

PART B RAW MATERIAL IN THE FORM OF A MIXTURE

3.04 If you obtain the listed substance in the form of a mixture, list the trade name(s) of the mixture, the name of its supplier(s) or manufacturer(s), an estimate of the average percent composition by weight of the listed substance in the mixture, and the amount of mixture processed during the reporting year.

CBI

☐

<u>Trade Name</u>	<u>Supplier or Manufacturer</u>	<u>Average % Composition by Weight (specify \pm % precision)</u>	<u>Amount Processed (kg/yr)</u>
<u>Isofoam PE-10</u>	<u>Isofoam Systems</u>	<u>60 \pm NA</u>	<u>20.4</u>
<u>Ablebond 908-3</u>	<u>Ablestik Labs</u>	<u>1 \pm NA</u>	<u>0.6</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

☐ Mark (X) this box if you attach a continuation sheet.

PART C RAW MATERIAL VOLUME

3.05 State the quantity of the listed substance used as a raw material during the reporting year in the form of a class I chemical, class II chemical, or polymer, and the percent composition, by weight, of the listed substance.

CBI

☐

	Quantity Used (kg/yr)	% Composition by Weight of Listed Sub- stance in Raw Material (specify \pm % precision)
Class I chemical	20.4 0.6	60 \pm NA 1 \pm NA
Class II chemical	Not Applicable	Not Applicable
Polymer	Not Applicable	Not Applicable

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 4 PHYSICAL/CHEMICAL PROPERTIES

General Instructions:

If you are reporting on a mixture as defined in the glossary, reply to questions in Section 4 that are inappropriate to mixtures by stating "NA -- mixture."

For questions 4.06-4.15, if you possess any hazard warning statement, label, MSDS, or other notice that addresses the information requested, you may submit a copy or reasonable facsimile in lieu of answering those questions which it addresses.

PART A PHYSICAL/CHEMICAL DATA SUMMARY

- 4.01 Specify the percent purity for the three major¹ technical grade(s) of the listed substance as it is manufactured, imported, or processed. Measure the purity of the substance in the final product form for manufacturing activities, at the time you import the substance, or at the point you begin to process the substance.

☐ Not Applicable - mixture

	<u>Manufacture</u>	<u>Import</u>	<u>Process</u>
Technical grade #1	_____ % purity	_____ % purity	_____ % purity
Technical grade #2	_____ % purity	_____ % purity	_____ % purity
Technical grade #3	_____ % purity	_____ % purity	_____ % purity

¹Major = Greatest quantity of listed substance manufactured, imported or processed.

- 4.02 Submit your most recently updated Material Safety Data Sheet (MSDS) for the listed substance, and for every formulation containing the listed substance. If you possess an MSDS that you developed and an MSDS developed by a different source, submit your version. Indicate whether at least one MSDS has been submitted by circling the appropriate response.

Yes ①

No 2

Indicate whether the MSDS was developed by your company or by a different source.

Your company 1

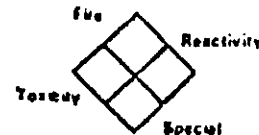
Another source ②

☐ Mark (X) this box if you attach a continuation sheet.

MATERIAL SAFETY DATA SHEET

PRODUCT ISOFOAM[®] PE - 10A

HAZARD RATING
 4 - EXTREME
 3 - HIGH
 2 - MODERATE
 1 - SLIGHT
 0 - INSIGNIFICANT



SECTION I

IPI

Isofoam[®] Systems

Triumph Industrial Park, 505 Blue Ball Road
 P.O. Box 70, Elkton, MD 21921 (301/392-4800)

EMERGENCY TELEPHONE
 MANUFACTURER
 (301) 392-4800
 CHEM TREC 1-(800) 424-9300

1 CHEMICAL NAME OR FAMILY

3 Toluene Diisocyanate (TDI) Prepolymer

4 FORMULA

Proprietary

SECTION II - CHEMICAL AND PHYSICAL PROPERTIES

CHEMICAL

PHYSICAL

HAZARDOUS DECOMPOSITION PRODUCTS

5 Oxides of Carbon and Nitrogen

INCOMPATIBILITY (KEEP AWAY FROM)

6 Water (moisture), Alcohols, Amines, Strong Acids and Bases

LIST ALL TOXIC AND HAZARDOUS INGREDIENTS

7 Toluene Diisocyanate (TDI) and Toluene Diisocyanate (TDI) Prepolymers

FORM

8 liquid

ODOR

9 Sharp Pungent TDI Odor

APPEARANCE

10 Liquid

COLOR

11 Slight yellow

SPECIFIC GRAVITY

12 (WATER = 1)

1.23 @ 25°C

BOILING PT.

203 °C

398 °F

MELTING PT.

NDA °C

NDA °F

SOLUBILITY
IN WATER

AT NA °C

Reacts

% VOLATILE
(BY WT %)

15

NDA

EVAP. RATE

17 (Water = 1)

NDA

VAPOR PRESSURE

18 (mm Hg at 20°C)

0.011

VAPOR DENSITY

19 (AIR = 1)

NDA

pH AS IS

20 pH X X X

NDA

NDA

STRONG ACID

☐

STRONG BASE

☐

STABLE

☒

UNSTABLE

☐

VISCOSITY

SUS

AT 100°F

22

NDA

23

Viscosity @ 25°C

4,000 cps

SECTION III - FIRE AND EXPLOSION DATA

SPECIAL FIRE FIGHTING PROCEDURES Firefighters must be equipped to prevent breathing of vapors or products of combustion. Must wear self-contained breathing apparatus.

FLASH POINT (METHOD USED)
C.O.C.

26 > 150 °C > 300 °F

FLAMMABLE LIMITS %

27 LOWER NDA UPPER NDA

EXTINGUISHING AGENTS

X DRY-CHEMICAL X CO₂

X WATERSPRAY X FOAM

(X) WATERFOG (X) SAND/EARTH

28 (X) OTHER

UNUSUAL FIRE AND EXPLOSION HAZARDS

Avoid moisture contamination in closed containers. Reaction with moisture will generate CO₂ which may rupture the container.

SECTION IV - HEALTH HAZARD DATA

PERMISSIBLE CONCENTRATIONS (AIR)

29 0.02 ppm - O.S.H.A. TLV for TDI

EFFECTS OF OVEREXPOSURE Irritant to eyes & respiratory tract. May cause headaches, nausea, coughing, shortness of breath, & chest discomfort. May result in respiratory distress.

TOXICOLOGICAL PROPERTIES

May cause allergic skin or respiratory reaction. Persons with known respiratory allergies should avoid exposure to this product.

EMERGENCY FIRST AID PROCEDURES

32 EYES In case of eye contact, flush with plenty of water for at least 15 minutes. Call a physician.

33 SKIN CONTACT

Wash thoroughly with soap and water. Remove contaminated clothing & discard contaminated shoes. Wash clothing before reuse.

34 INHALATION

Remove from contaminated area to fresh air environment. Call a physician. If victim is not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen.

35 IF SWALLOWED

Call a physician immediately

NA = NOT APPLICABLE

NDA = NO DATA AVAILABLE

< = LESS THAN

> = MORE THAN



MATERIAL SAFETY DATA SHEET

PRODUCT ISOFOAM^R PE-10W

HAZARD RATING N F P A	4 - EXTREME	Reactivity Specific
	3 - HIGH	
	2 - MODERATE	
	1 - SLIGHT	
	0 - INSIGNIFICANT	

SECTION I

Isofoam[®] Systems

Triumph Industrial Park, 505 Blue Ball Road

P.O. Box 70, Elkton, MD 21921 (301/392-4800)

 EMERGENCY TELEPHONE
 MANUFACTURER
 (301) 392-4800
 CHEM TREC 1-800-424-8300

CHEMICAL NAME OR FAMILY

3 Not Applicable

blend of polyols, surfactants
catalysts, and blowing agents.

SECTION II - CHEMICAL AND PHYSICAL PROPERTIES

CHEMICAL

-PHYSICAL

HAZARDOUS DECOMPOSITION PRODUCTS

5 Oxides of Carbon and Nitrogen

INCOMPATIBILITY (KEEP AWAY FROM)

6 Reacts with Isocyanates

LIST ALL TOXIC AND HAZARDOUS INGREDIENTS

7 Amine Catalysts < 1 %

FORM

8 Liquid

ODOR

9 Mild

APPEARANCE

10 Viscous Liquid

COLOR

11 Clear Light Yellow

SPECIFIC GRAVITY

12 (WATER = 1) 1.15 @ 25 °C

BOILING PT.

13 100 °C
212 °F

MELTING PT.

14 NA °C
NA °FSOLUBILITY
IN WATER

15 AT 25 °C Slight

% VOLATILE
(BY WT %)

16 NIL

EVAP. RATE

17 (Water = 1) NIL

VAPOR PRESSURE

18 (mm Hg at 20 °C) NA

VAPOR DENSITY

19 (AIR = 1) > 1

pH AS IS

20 pH (X X X) NDA

STRONG ACID

STRONG BASE

STABLE

UNSTABLE

VISCOSITY

SUS

AT 100 °F

22 NDA

Viscosity @ 25 °C

23 10,000 cps

SECTION III - FIRE AND EXPLOSION DATA

SPECIAL FIRE FIGHTING PROCEDURES

Firefighters must be equipped to prevent breathing of vapors or products of combustion. Wear self-contained breathing apparatus

UNUSUAL FIRE AND EXPLOSION HAZARDS

NDA

FLASH POINT (METHOD USED)

Without CC1 F/H O

26 > 190 °C 337 °F

FLAMMABLE LIMITS %

27 LOWER NDA UPPER NDA

EXTINGUISHING AGENTS

X DRYCHEMICAL X CO₂

X WATERSPRAY X FOAM

X WATERFOG X SAND/EARTH

28 X OTHER

SECTION IV - HEALTH HAZARD DATA

PERMISSIBLE CONCENTRATIONS (AIR)

29 NDA

EFFECTS OF OVEREXPOSURE

30 Irritant to eyes and respiratory tract

TOXICOLOGICAL PROPERTIES

31 NDA

EMERGENCY FIRST AID PROCEDURES

32 EYES Wash with large amounts of water for 15 minutes and see a physician.

33 SKIN CONTACT: Wipe off excess and wash area with soap & water. Remove contaminated clothing and discard contaminated shoes. Wash clothing before reuse.

34 INHALATION Provide uncontaminated air supply and see a physician.

35 IF SWALLOWED See a physician immediately.

NA = NOT APPLICABLE

NDA = NO DATA AVAILABLE

< = LESS THAN

> = MORE THAN



MATERIAL SAFETY DATA SHEET

PRODUCT ISOFOAM^R PE-10W**SECTION V - SPECIAL PROTECTION INFORMATION**
VENTILATION TYPE REQUIRED (LOCAL, MECHANICAL, SPECIAL)

36 Mechanical

RESPIRATORY PROTECTION (SPECIFY TYPE)

37 Use only NIOSH approved apparatus

PROTECTIVE GLOVES

Impervious rubber or
38 plastic

EYE PROTECTION

39 Safety goggles

OTHER PROTECTIVE EQUIPMENT

40 None

SECTION VI - HANDLING OF SPILLS OR LEAKS

PROCEDURES FOR CLEAN UP

With adequate ventilation, cover with an inert absorbent such as clay or vermiculite and transfer to a waste container. Wash area with detergent and water.

41 WASTE DISPOSAL

42 Dispose of consistent with Federal, State, and local regulations

SECTION VII - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

43 Store between 40 and 80⁰F. (5 - 27⁰C)**SECTION VIII - TRANSPORTATION DATA**

44 UNREGULATED BY D.O.T. <input checked="" type="checkbox"/>	U.S. D.O.T. PROPER SHIPPING NAME		
	47	NA	
45 REGULATED BY D.O.T. <input type="checkbox"/>	U.S. D.O.T. HAZARD CLASS		I.D. NUMBER
	48	NA	49 NA
TRANSPORTATION EMERGENCY INFORMATION	50	LABEL(S) REQUIRED	
		51	NONE
	FREIGHT CLASSIFICATION		
	52 Liquid Plastic Material /NOIBN		
CHEM TREC 1-800-424-9300	SPECIAL TRANSPORTATION NOTES		
	53 None		

SECTION IX - COMMENTS

64 SPECIAL NOTICE: THE FOAM PRODUCED IS AN ORGANIC MATERIAL AND MUST BE CONSIDERED AS COMBUSTIBLE. THE FOAM MUST NOT BE LEFT EXPOSED OR UNPROTECTED. SHIELD THE FOAM FROM HEAT AND SPARKS WITH A THERMAL BARRIER.

SIGNATURE

TITLE Sales Service Supervisor

REVISION DATE

SENT TO ATTN:

DATE

SUPERSEDES

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use.

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

TRADE NAME: Ablebond 908-3

CHEMICAL NAMES: Isocyanate Terminated Polyol

MANUFACTURER'S NAME: ABLESTIK LABORATORIES

ADDRESS: 833 West 182nd Street, Gardena, CA 90248 (213) 532-9341

REVISION DATE: 7/11/89

II HAZARDOUS INGREDIENTS

<u>CHEMICAL NAMES</u>	<u>CAS NUMBERS</u>	<u>PERCENT</u>	<u>EXPOSURE LIMIT</u>	
			<u>ACGIH(TWA)</u>	<u>OSHA(PEL)</u>
Toluene diisocyanate	584-84-9	< 1	0.005ppm	0.02ppm

III PHYSICAL PROPERTIES

VAPOR DENSITY (AIR=1): > 1

SPECIFIC GRAVITY: 2.2

SOLUBILITY IN WATER: Not applicable

VAPOR PRESSURE, mm Hg at 20°C: < 0.1

EVAPORATION RATE (ETHER =1): < 1

APPEARANCE AND ODOR: White heavy paste; pungent odor

MELTING POINT(°F): Not applicable

BOILING POINT (°F @ 760 mm Hg): 482°

PERCENT VOLATILE BY WEIGHT: < 2

IV FIRE AND EXPLOSION

FLASH POINT, °F (GIVE METHOD): 200° (Setaflash)

AUTOIGNITION TEMPERATURE: Not determined

FLAMMABLE LIMITS IN AIR, VOLUME %: LOWER Not determined UPPER Not determined

FIRE EXTINGUISHING MATERIALS: Dry chemical, foam.

FIRE EXTINGUISHING PROCEDURES: Wear self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Protect against inhalation of cyanate vapors and other decomposition/combustion products.

V HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE FOR EACH POTENTIAL ROUTE OF EXPOSURE

INHALED: Unknown for product mixture. Inhalation of isocyanate vapors can produce severe irritation of the mucous membranes in the respiratory tract, i.e. nose, throat, and lungs. Exposure of humans to concentrations of isocyanate vapor in excess of the maximum acceptable concentration has caused illness characterized by breathlessness, chest discomfort and reduced pulmonary function. Massive exposure to high concentrations has caused, within minutes, irritation of the trachea and larynx and severe coughing spasms. Concentrations of isocyanate vapors should be maintained below the TLV by engineering controls. Can cause sensitization in humans. TDI Inhalation-Human TClO: 0.02ppm/2Y:PUL. TDI Inhalation-Human TClO: 0.5ppm: IRR. Symptoms of overexposure may be delayed and could include dry cough, chest tightness, wheezing, shortness of breath, asthmatic type symptoms

CONTACT WITH SKIN: Unknown for product mixture. Isocyanates react with skin protein and tissue moisture. If not promptly removed, liquid spills on the skin can cause reddening, swelling, and blistering of exposed skin. REPEATED SKIN CONTACT HAS CAUSED SKIN SENSITIZATION IN HUMANS AND SHOULD BE AVOIDED. TDI: Skin-Rabbit: 500 mg/24H MOD. Overexposure may cause irritation, dermatitis and possible skin sensitization given prolonged or repeated skin contact.

CONTACT WITH EYES: Unknown for the mixture. Liquid isocyanates splashed into the eyes can be harmful to the delicate eye tissue and must be avoided. Injury results from reaction of the isocyanate with the eye fluid which may dehydrate the tissue and result in severe irritation of the eyelid and possible damage to the cornea (corneal opacity). Exposure to high concentrations of isocyanate vapor can lead to formation of solid crystals in the eye fluid causing mechanical irritation of the eyes hours after exposure. TDI Eye-Rabbit: 100 mg SEV. Overexposure can cause irritation, tearing, reddening and blurred vision.

ABSORBED THROUGH SKIN: Isocyanates react with skin protein and tissue moisture. Absorption through skin may be harmful.

SWALLOWED: Unknown for the mixture. Animal experiments indicate that the toxic effects of TDI or polymeric isocyanates, when ingested, are slight. The LD50 in rats for TDI is 5840 mg/kg. From these experiments, it is believed that ingestion of TDI or polymeric isocyanates would not be fatal to humans, but could result in irritation and corrosive action on the mouth and stomach tissue. Overexposure may cause nausea, vomiting, and gastrointestinal pain.

HEALTH EFFECTS OR RISKS FROM EXPOSURE:

ACUTE: See symptoms of overexposure, section V.

CHRONIC: Unknown for product mixture. Toluene Diisocyanate(TDI) is considered a suspect carcinogen as tested by National Toxicology Program, 1983, in rats and female mice. Administered by gavage to rats, TDI caused subcutaneous neoplasms or cancers in both sexes. Additionally, males developed pancreatic neoplasms and females pancreatic, liver and mammary neoplasms. In mice similarly exposed, TDI caused circulatory neoplasms and cancers (combined) and liver neoplasms in females but was not carcinogenic to males. (NTP 1983 Program Tech Report on Carcinogenic Study of Commercial Grade of TDI.)

FIRST AID: EMERGENCY PROCEDURE

EYE CONTACT: Immediately flush with water for 15 minutes lifting the upper and lower eyelids occasionally and obtain immediate medical attention.

SKIN CONTACT: Wash immediately with soap and water. If irritation persists, seek medical attention immediately

INHALED: Remove to fresh air immediately. Administer artificial respiration as required. Obtain medical attention.

INGESTION: Do not induce vomiting. Obtain immediate medical attention. If unavailable, contact nearest Poison Control Center.

SUSPECTED CANCER AGENT? Toluene diisocyanate is considered to be carcinogenic by NTP.

VI REACTIVITY DATA

STABILITY: X STABLE UNSTABLE

CONDITIONS TO AVOID: Heat prior to cure.

INCOMPATIBILITY (MATERIALS TO AVOID): Moisture, strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS (INCLUDING COMBUSTION PRODUCTS):

Carbon monoxide, carbon dioxide, nitrogen oxides, aromatic amines, aldehydes, and hydrogen cyanide

HAZARDOUS POLYMERIZATION: MAY OCCUR X WILL NOT OCCUR

CONDITIONS TO AVOID: None known

VII SPILL, LEAK AND DISPOSAL

SPILL RESPONSE PROCEDURES: Wipe up with solvent saturated toweling and collect in an appropriate container for disposal.

PREPARING WASTES FOR DISPOSAL: Dispose in approved chemical disposal area or in a manner which complies with all local, state and federal regulations.

VIII SPECIAL HANDLING INFORMATION

VENTILATION AND ENGINEERING CONTROLS: Provide adequate ventilation to minimize inhalation. Mechanical (local exhaust) recommended for all spray operations and elevated temperature uses.

RESPIRATORY PROTECTION: Wear NIOSH-MSHA approved self-contained positive pressure breathing apparatus as necessary within equipment limitations. Contaminant levels will vary dependent on the operation.

EYE PROTECTION: Safety goggles with side shields.

GLOVES: Rubber

OTHER CLOTHING AND EQUIPMENT: Protective equipment to cover exposed areas.

WORK PRACTICES, HYGIENIC PRACTICES: Vent curing oven to outdoors.

OTHER HANDLING AND STORAGE REQUIREMENTS: Store frozen at all times.

PROTECTIVE MEASURES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:

Avoid contact with skin, eyes and clothing. Good housekeeping is required. Avoid inhalation of vapors.

IX REGULATORY INFORMATION

SARA/TITLE III - TOXIC CHEMICALS LIST:

This product contains chemicals subject to the reporting requirements of section 313 of Title III of Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

< 2

584-84-9

Toluene diisocyanate

TSCA INVENTORY STATUS:

Chemical components listed on TSCA Inventory

CALIFORNIA PROPOSITION 65:

This product does not contain toxic chemicals currently on the California List of known carcinogens and reproductive toxins.

DISCLAIMER: THE INFORMATION GIVEN AND THE RECOMMENDATIONS MADE HEREIN APPLY TO OUR PRODUCT(S) ALONE AND NOT IN COMBINATION WITH ANY OTHER PRODUCT(S). SUCH INFORMATION AND RECOMMENDATIONS ARE BASED ON OUR RESEARCH AND ON DATA FROM OTHER RELIABLE SOURCES AND ARE BELIEVED TO BE ACCURATE BUT NO GUARANTEE OF THEIR ACCURACY IS MADE. IN EVERY CASE WE URGE AND RECOMMEND THAT PURCHASERS BEFORE USING ANY PRODUCT MAKE THEIR OWN TESTS TO VERIFY THIS DATA UNDER THEIR OWN OPERATING CONDITIONS AND TO DETERMINE TO THEIR OWN SATISFACTION WHETHER THE PRODUCT IS SUITABLE FOR THEIR PARTICULAR PURPOSES. THE PRODUCT(S) DISCUSSED HEREIN ARE SOLD WITHOUT ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED.

- 4.03 Submit a copy or reasonable facsimile of any hazard information (other than an MSDS) that is provided to your customers/users regarding the listed substance or any formulation containing the listed substance. Indicate whether this information has been submitted by circling the appropriate response.

Not Applicable - The articles the customer receives do not contain the listed substance.

Yes 1

No 2

- 4.04 For each activity that uses the listed substance, circle all the applicable number(s) corresponding to each physical state of the listed substance during the activity listed. Physical states for importing and processing activities are determined at the time you import or begin to process the listed substance. Physical states for manufacturing, storage, disposal and transport activities are determined using the final state of the product.

CBI

☐

Activity	Physical State				
	Solid	Slurry	Liquid	Liquified Gas	Gas
Manufacture	1	2	3	4	5
Import	1	2	3	4	5
Process	1	2	3	4	5
Store	1	2	3	4	5
Dispose	1	2	3	4	5
Transport	1	2	3	4	5

☐ Mark (X) this box if you attach a continuation sheet.

4.05 Particle Size -- If the listed substance exists in particulate form during any of the following activities, indicate for each applicable physical state the size and the percentage distribution of the listed substance by activity. Do not include particles ≥ 10 microns in diameter. Measure the physical state and particle sizes for importing and processing activities at the time you import or begin to process the listed substance. Measure the physical state and particle sizes for manufacturing storage, disposal and transport activities using the final state of the product.

CBI

☐

Not Applicable

Physical
State

		Manufacture	Import	Process	Store	Dispose	Transport
Dust	<1 micron	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	1 to <5 microns	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	5 to <10 microns	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Powder	<1 micron	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	1 to <5 microns	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	5 to <10 microns	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Fiber	<1 micron	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	1 to <5 microns	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	5 to <10 microns	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Aerosol	<1 micron	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	1 to <5 microns	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	5 to <10 microns	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 5 ENVIRONMENTAL FATE

PART A RATE CONSTANTS AND TRANSFORMATION PRODUCTS

5.01 Indicate the rate constants for the following transformation processes.

a. Photolysis:

Absorption spectrum coefficient (peak) UK (1/M cm) at UK nm
 Reaction quantum yield, ϕ UK at UK nm
 Direct photolysis rate constant, k_p , at ... UK 1/hr UK latitude

b. Oxidation constants at 25°C:

For 1O_2 (singlet oxygen), k_{ox} UK 1/M hr
 For RO_2 (peroxy radical), k_{ox} UK 1/M hr

c. Five-day biochemical oxygen demand, BOD_5 ... UK mg/l

d. Biotransformation rate constant:

For bacterial transformation in water, k_b ... UK 1/hr
 Specify culture UK

e. Hydrolysis rate constants:

For base-promoted process, k_b UK 1/M hr
 For acid-promoted process, k_a UK 1/M hr
 For neutral process, k_n UK 1/hr

f. Chemical reduction rate (specify conditions) UK

g. Other (such as spontaneous degradation) ... UK

☐ Mark (X) this box if you attach a continuation sheet.

PART B PARTITION COEFFICIENTS

5.02 a. Specify the half-life of the listed substance in the following media.

<u>Media</u>	<u>Half-life (specify units)</u>
Groundwater	<u>UK</u>
Atmosphere	<u>UK</u>
Surface water	<u>UK</u>
Soil	<u>UK</u>

b. Identify the listed substance's known transformation products that have a half-life greater than 24 hours.

<u>CAS No.</u>	<u>Name</u>	<u>Half-life (specify units)</u>	<u>Media</u>
<u>UK</u>	<u>UK</u>	<u>UK</u>	in <u>UK</u>
			in
			in
			in

5.03 Specify the octanol-water partition coefficient, K_{ow} ... UK at 25°C
 Method of calculation or determination UK

5.04 Specify the soil-water partition coefficient, K_d UK at 25°C
 Soil type UK

5.05 Specify the organic carbon-water partition coefficient, K_{oc} UK at 25°C

5.06 Specify the Henry's Law Constant, H UK at $\text{atm} \cdot \text{m}^3/\text{mole}$

☐ Mark (X) this box if you attach a continuation sheet.

- 5.07 List the bioconcentration factor (BCF) of the listed substance, the species for which it was determined, and the type of test used in deriving the BCF.

Bioconcentration Factor

Species

Test¹

UK

UK

UK

¹Use the following codes to designate the type of test:

F = Flowthrough

S = Static

☐ Mark (X) this box if you attach a continuation sheet.

6.04 For each market listed below, state the quantity sold and the total sales value of
CBI the listed substance sold or transferred in bulk during the reporting year.

☐

Not Required

<u>Market</u>	<u>Quantity Sold or Transferred (kg/yr)</u>	<u>Total Sales Value (\$/yr)</u>
Retail sales	_____	_____
Distribution -- Wholesalers	_____	_____
Distribution -- Retailers	_____	_____
Intra-company transfer	_____	_____
Repackagers	_____	_____
Mixture producers	_____	_____
Article producers	_____	_____
Other chemical manufacturers or processors	_____	_____
Exporters	_____	_____
Other (specify)	_____	_____
_____	_____	_____

6.05 Substitutes -- List all known commercially feasible substitutes that you know exist
for the listed substance and state the cost of each substitute. A commercially
feasible substitute is one which is economically and technologically feasible to use
CBI in your current operation, and which results in a final product with comparable
performance in its end uses.

☐

<u>Substitute</u>	<u>Cost (\$/kg)</u>
_____ U K	_____ U K
_____	_____
_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 7 MANUFACTURING AND PROCESSING INFORMATION

General Instructions:

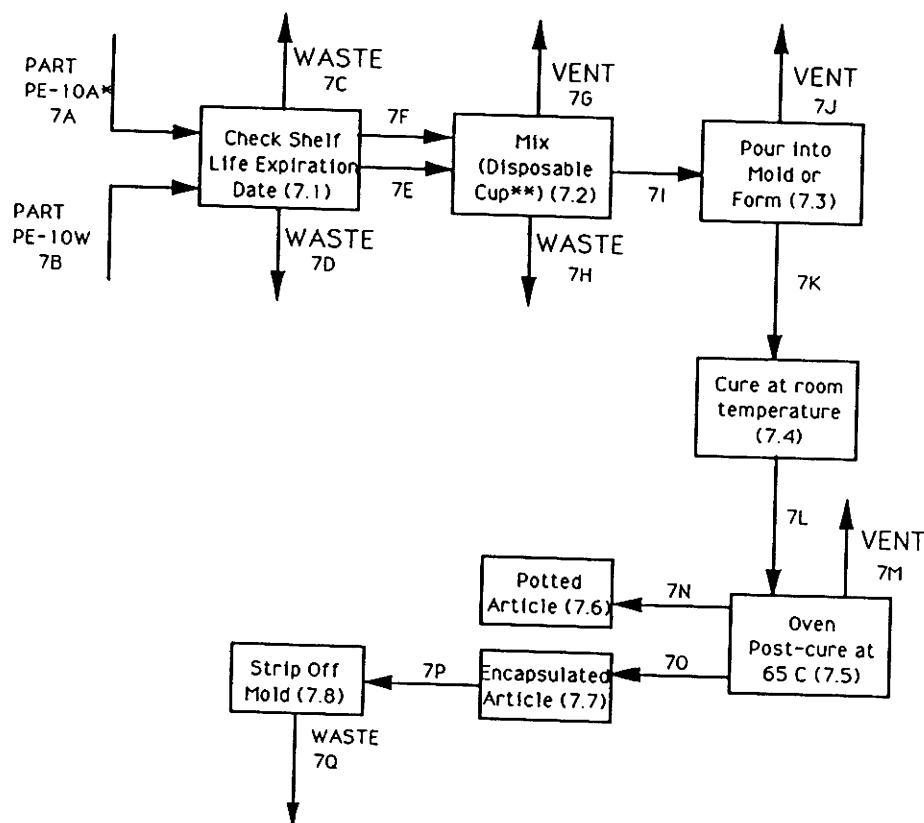
For questions 7.04-7.06, provide a separate response for each process block flow diagram provided in questions 7.01, 7.02, and 7.03. Identify the process type from which the information is extracted.

PART A MANUFACTURING AND PROCESSING PROCESS TYPE DESCRIPTION

7.01 In accordance with the instructions, provide a process block flow diagram showing major (greatest volume) process type involving the listed substance.

CBI

☐ Process type Potting, Encapsulation PE-10



* CONTAINS TDI
** TIN FOIL OR PLASTIC
(ABOUT 150 GRAMS)

☒ Mark (X) this box if you attach a continuation sheet.

SECTION 7 MANUFACTURING AND PROCESSING INFORMATION

General Instructions:

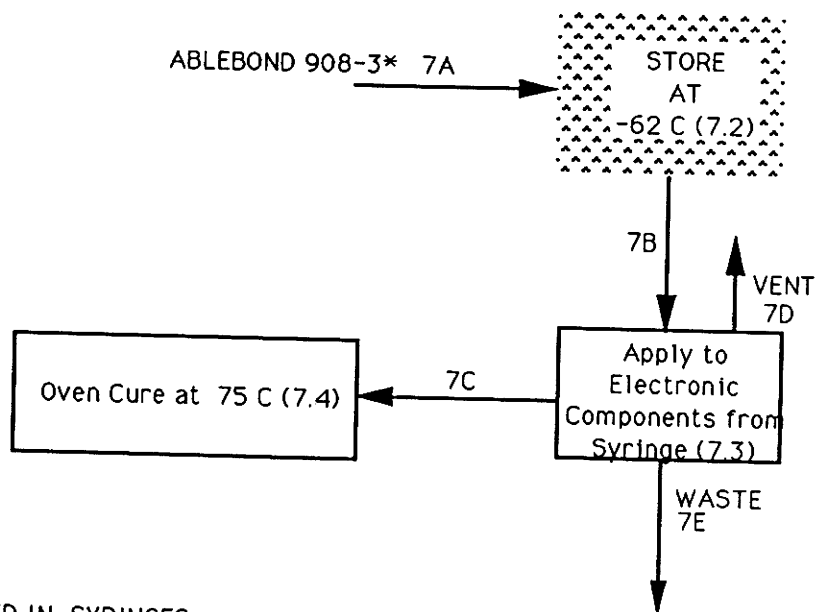
For questions 7.04-7.06, provide a separate response for each process block flow diagram provided in questions 7.01, 7.02, and 7.03. Identify the process type from which the information is extracted.

PART A MANUFACTURING AND PROCESSING PROCESS TYPE DESCRIPTION

7.01 In accordance with the instructions, provide a process block flow diagram showing major (greatest volume) process type involving the listed substance.

CBI

☐ Process type Staking, Bonding 908-3



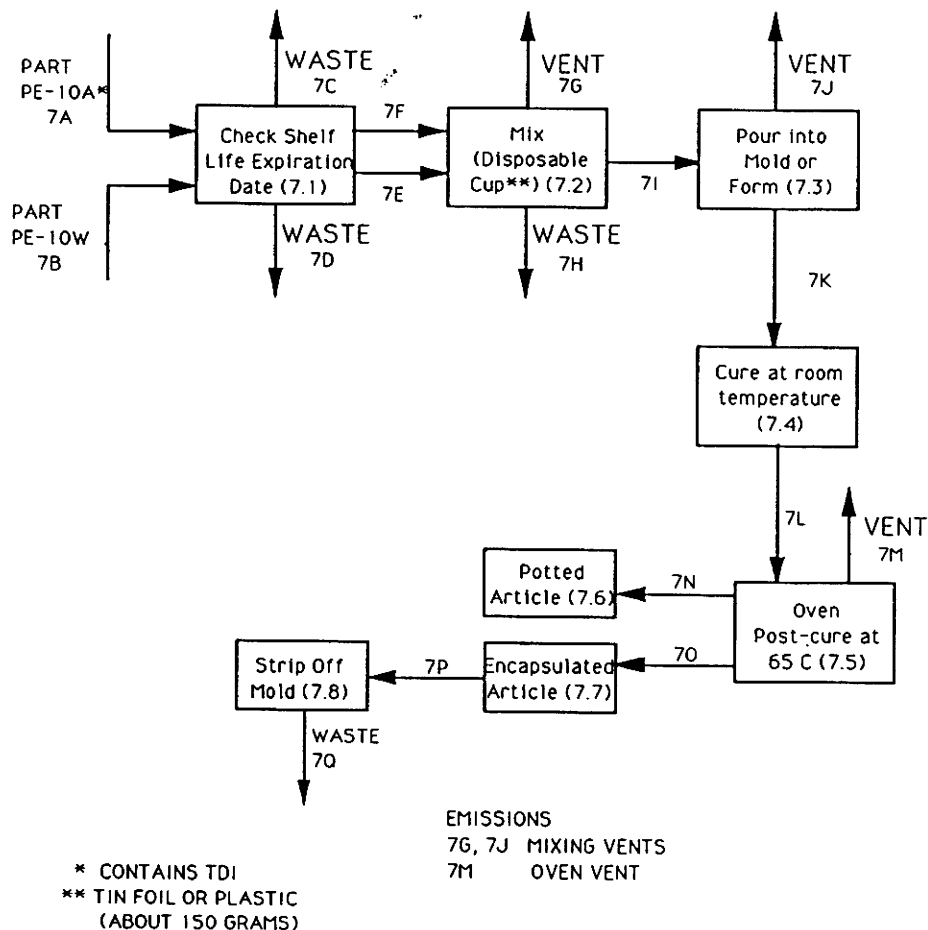
*PREPACKAGED IN SYRINGES

☐ Mark (X) this box if you attach a continuation sheet.

- 7.03 In accordance with the instructions, provide a process block flow diagram showing all process emission streams and emission points that contain the listed substance and which, if combined, would total at least 90 percent of all facility emissions if not treated before emission into the environment. If all such emissions are released from one process type, provide a process block flow diagram using the instructions for question 7.01. If all such emissions are released from more than one process type, provide a process block flow diagram showing each process type as a separate block.

CBI

☐ Process type Potting, Encapsulation PE-10

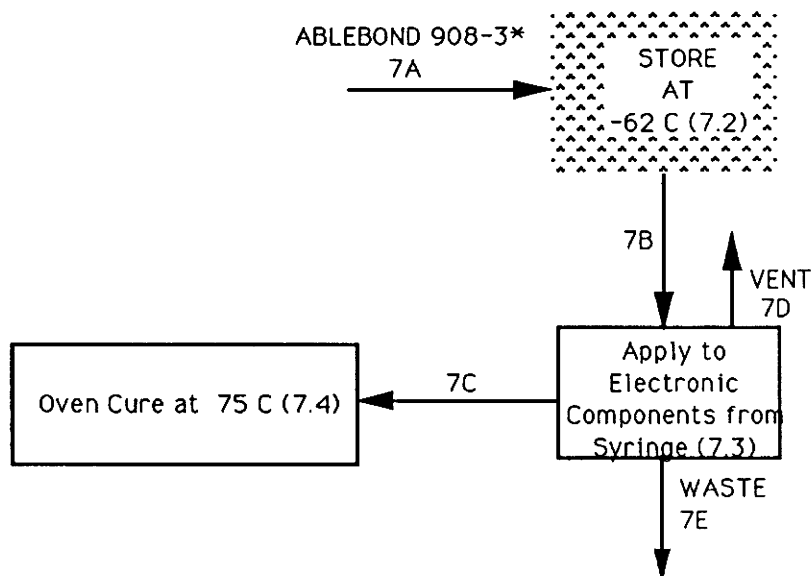


☒ Mark (X) this box if you attach a continuation sheet.

- 7.03 In accordance with the instructions, provide a process block flow diagram showing process emission streams and emission points that contain the listed substance and which, if combined, would total at least 90 percent of all facility emissions if not treated before emission into the environment. If all such emissions are released from one process type, provide a process block flow diagram using the instructions for question 7.01. If all such emissions are released from more than one process type, provide a process block flow diagram showing each process type as a separate block.

CBI

☐ Process type Bonding, Staking 908-3



*PREPACKAGED IN SYRINGES

EMISSIONS
7D APPLICATION VENT

☐ Mark (X) this box if you attach a continuation sheet.

- 7.04 Describe the typical equipment types for each unit operation identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type Potting, Encapsulation PE10

Unit Operation ID Number	Typical Equipment Type	Operating Temperature Range (°C)	Operating Pressure Range (mm Hg)	Vessel Composition
<u>7.1</u>	<u>none</u>	<u>Not Applicable</u>	<u>Not Applicable</u>	<u>Not Applicable</u>
<u>7.2</u>	<u>cup</u>	<u>ambient</u>	<u>atmospheric</u>	<u>plasticert in foil</u>
<u>7.3</u>	<u>mold or form</u>	<u>ambient</u>	<u>atmospheric</u>	<u>aluminum</u>
<u>7.4</u>	<u>none</u>	<u>ambient</u>	<u>atmospheric</u>	<u>none</u>
<u>7.5</u>	<u>oven</u>	<u>65</u>	<u>atmospheric</u>	<u>steel/stainless steel</u>
<u>7.6</u>	<u>none</u>	<u>ambient</u>	<u>atmospheric</u>	<u>none</u>
<u>7.7</u>	<u>none</u>	<u>ambient</u>	<u>atmospheric</u>	<u>none</u>
<u>7.8</u>	<u>screw driver</u>	<u>ambient</u>	<u>atmospheric</u>	<u>steel</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

☒ Mark (X) this box if you attach a continuation sheet.

- 7.04 Describe the typical equipment types for each unit operation identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type Staking, Bonding 908-3

Unit Operation ID Number	Typical Equipment Type	Operating Temperature Range (°C)	Operating Pressure Range (mm Hg)	Vessel Composition
<u>7.1</u>	<u>Freezer</u>	<u>-62</u>	<u>atmospheric</u>	<u>steel</u>
<u>7.2</u>	<u>Freezer</u>	<u>-62</u>	<u>atmospheric</u>	<u>steel</u>
<u>7.3</u>	<u>syringe</u>	<u>ambient</u>	<u>atmospheric</u>	<u>plastic</u>
<u>7.4</u>	<u>Oven</u>	<u>7.5</u>	<u>atmospheric</u>	<u>steel/stainless steel</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

7.05 Describe each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type Potting, Encapsulation PE-10

Process Stream ID Code	Process Stream Description	Physical State ¹	Stream Flow (kg/yr)
<u>7A</u>	<u>PE-10A</u>	<u>OL</u>	<u>20.4</u>
<u>7B</u>	<u>PE-10W</u>	<u>OL</u>	<u>20.4</u>
<u>7C</u>	<u>Expired PE-10A</u>	<u>OL</u>	<u>19.5</u>
<u>7D</u>	<u>Expired PE-10W</u>	<u>OL</u>	<u>19.7</u>
<u>7E</u>	<u>PE-10W</u>	<u>OL</u>	<u>0.7</u>
<u>7F</u>	<u>PE-10A</u>	<u>OL</u>	<u>0.9</u>
<u>7G</u>	<u>Mixing Vent</u>	<u>GU</u>	<u>40,000</u>
<u>7H</u>	<u>Spent Mixing Cup/ residual</u>	<u>SO</u>	<u>0.03 *</u>

¹Use the following codes to designate the physical state for each process stream:

GC = Gas (condensable at ambient temperature and pressure)
 GU = Gas (uncondensable at ambient temperature and pressure)
 SO = Solid
 SY = Sludge or slurry
 AL = Aqueous liquid
 OL = Organic liquid
 IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

* Does not include the weight of the spent mixing cup.

☒ Mark (X) this box if you attach a continuation sheet.

7.05 Describe each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type Potting, Encapsulation PE-10

Process Stream ID Code	Process Stream Description	Physical State ¹	Stream Flow (kg/yr)
<u>7I</u>	<u>Reactive Mix</u>	<u>OL</u>	<u>1.57</u>
<u>7J</u>	<u>Mixing Vent</u>	<u>GU</u>	<u>40,000</u>
<u>7K</u>	<u>Curing Article</u>	<u>SO</u>	<u>1.57</u>
<u>7L</u>	<u>Postcuring Article</u>	<u>SO</u>	<u>1.57</u>
<u>7M</u>	<u>Oven Vent</u>	<u>GU</u>	<u>2000</u>
<u>7N</u>	<u>Potted Article</u>	<u>SO</u>	<u>0.785</u>
<u>7O</u>	<u>Encapsulated Article</u>	<u>SO</u>	<u>0.785</u>
<u>7P</u>	<u>Cured Article</u>	<u>SO</u>	<u>0.785</u>

¹Use the following codes to designate the physical state for each process stream:

- GC = Gas (condensable at ambient temperature and pressure)
- GU = Gas (uncondensable at ambient temperature and pressure)
- SO = Solid
- SY = Sludge or slurry
- AL = Aqueous liquid
- OL = Organic liquid
- IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

☒ Mark (X) this box if you attach a continuation sheet.

7.05 Describe each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type Potting, Encapsulation PE-10

Process Stream ID Code	Process Stream Description	Physical State ¹	Stream Flow (kg/yr)
<u>7Q</u>	<u>urethane</u>	<u>SO</u>	<u>0.004</u>

¹Use the following codes to designate the physical state for each process stream:

- GC = Gas (condensable at ambient temperature and pressure)
- GU = Gas (uncondensable at ambient temperature and pressure)
- SO = Solid
- SY = Sludge or slurry
- AL = Aqueous liquid
- OL = Organic liquid
- IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

☒ Mark (X) this box if you attach a continuation sheet.

7.05 Describe each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type Sta King, bonding 908-3

Process Stream ID Code	Process Stream Description	Physical State ¹	Stream Flow (kg/yr)
<u>7A</u>	<u>frozen adhesive</u>	<u>SO</u>	<u>0.59</u>
<u>7B</u>	<u>frozen adhesive</u>	<u>SO</u>	<u>0.59</u>
<u>7C</u>	<u>thawing adhesive</u>	<u>OL</u>	<u>0.59</u>
<u>7D</u>	<u>application vent</u>	<u>GU</u>	<u>4100.0</u>
<u>7E</u>	<u>curing article</u>	<u>SO</u>	<u>0.56*</u>
<u>7F</u>	<u>reacted waste residual</u>	<u>SO</u>	<u>0.03*</u>

¹ Use the following codes to designate the physical state for each process stream:

- GC = Gas (condensable at ambient temperature and pressure)
- GU = Gas (uncondensable at ambient temperature and pressure)
- SO = Solid
- SY = Sludge or slurry
- AL = Aqueous liquid
- OL = Organic liquid
- IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

* Does not include the weight of the article or of the spent syringes.

☐ Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the CBI instructions for further explanation and an example.)

☐ Process type Potting Encapsulation PE-10

a.	b.	c.	d.	e.
Process Stream ID Code	Known Compounds ¹	Concentrations ^{2,3} (% or ppm)	Other Expected Compounds	Estimated Concentrations (% or ppm)
7A, 7C, 7F	Toluene Diisocyanate	60%	NA	NA
	TDI Prepolymers	40%		
	(from MSDS and phone conversation with company representative)			
7B, 7D, 7E	Polyols	UK	NA	NA
	Surfactants	UK		
	catalysts	UK		
	blowing agents	UK	(from MSDS)	
7I	urethane	10%	NA	NA
	TDI	UK		
	TDI Prepolymers	UK		
	Polyols	UK		

7.06 continued below

☒ Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the CBI instructions for further explanation and an example.)

☐ Process type Potting Encapsulation PE 10

a.	b.	c.	d.	e.
Process Stream ID Code	Known Compounds ¹	Concentrations ^{2,3} (% or ppm)	Other Expected Compounds	Estimated Concentrations (% or ppm)
	<u>surfactants</u>	<u>UK</u>		
	<u>catalysts</u>	<u>UK</u>		
	<u>blowing agents</u> <u>(E, W)</u>	<u>UK</u>		
<u>7K</u>	<u>urethane</u>	<u>20%</u>	<u>NA</u>	<u>NA</u>
	<u>TDI</u>	<u>UK</u>		
	<u>TDI Prepolymers</u>	<u>UK</u>		
	<u>Polyols</u>	<u>UK</u>		
	<u>Surfactants</u>	<u>UK</u>		
	<u>catalysts</u>	<u>UK</u>		
	<u>blowing agents</u> <u>(E, W)</u>	<u>UK</u>		

7.06 continued below

☒ Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the CBI instructions for further explanation and an example.)

☐ Process type Potting, Encapsulation PE-10

a.	b.	c.	d.	e.
Process Stream ID Code	Known Compounds ¹	Concentrations ^{2,3} (% or ppm)	Other Expected Compounds	Estimated Concentrations (% or ppm)
<u>7L</u>	<u>urethane</u>	<u>60%</u>	<u>NA</u>	<u>NA</u>
	<u>TDI</u>	<u>UK</u>		
	<u>TDI prepolymers</u>	<u>UK</u>		
	<u>Polyols</u>	<u>UK</u>		
	<u>Surfactants</u>	<u>UK</u>		
	<u>catalysts</u>	<u>UK</u>		
	<u>blowing agents</u>	<u>UK</u>		
	<u>(E, W)</u>			
<u>7N, 7O, 7P,</u>	<u>urethane</u>	<u>100%</u>	<u>NA</u>	<u>NA</u>
<u>7Q</u>	<u>TDI, Polyols</u>	<u>UK</u>		
	<u>Prepolymers, Catalysts</u>	<u>UK</u>		
	<u>Surfactants blowing agents</u>	<u>UK</u>		
	<u>(E, W)</u>			

7.06 continued below

☒ Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the CBI instructions for further explanation and an example.)

☐ Process type Potting, Encapsulation PE-10

a.	b.	c.	d.	e.
Process Stream ID Code	Known Compounds ¹	Concentrations ^{2,3} (% or ppm)	Other Expected Compounds	Estimated Concentrations (% or ppm)
<u>7G, 7J,</u>	<u>TDI</u>	<u><0.00001%</u>	<u>NA</u>	<u>NA</u>
	<u>Blowing Agents</u>	<u><0.00001%</u>		
	<u>Air</u>	<u>>99.99998%</u>		
	<u>(E, W)</u>			
<u>7M</u>	<u>TDI</u>	<u><0.00001%</u>	<u>NA</u>	<u>NA</u>
	<u>Blowing Agents</u>	<u><0.00001%</u>		
	<u>Air</u>	<u>>99.99998%</u>		
	<u>(E, W)</u>			

7.06 continued below

☒ Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the CBI instructions for further explanation and an example.)

☐ Process type Staking, Bonding 908-3

a.	b.	c.	d.	e.
Process Stream ID Code	Known Compounds ¹	Concentrations ^{2,3} (% or ppm)	Other Expected Compounds	Estimated Concentrations (% or ppm)
7A, 7B, 7C	Toluene diisocyanate	<1%	NA	NA
	Magnesium Oxide filler	75%		
	Prepolymer	12.5%		
	Polyol (E, W)	12.5%		
7D	Air	>99.99999%	NA	NA
	TDI (E, W)	<0.00001%		
7E	Urethane	20%	NA	NA
	Prepolymer	2.5%		
	Polyol	2.5%		
	Magnesium Oxide	75%		
	TDI (E, W)	<1%		

7.06 continued below

☒ Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the CBI instructions for further explanation and an example.)

☐ Process type Staking, Bonding 908-3

a.	b.	c.	d.	e.
Process Stream ID Code	Known Compounds ¹	Concentrations ^{2,3} (% or ppm)	Other Expected Compounds	Estimated Concentrations (% or ppm)
<u>7 F</u>	<u>urethane</u>	<u>25%</u>	<u>NA</u>	<u>NA</u>
	<u>Magnesium Oxide</u>	<u>75%</u>		
	<u>(E, W)</u>			

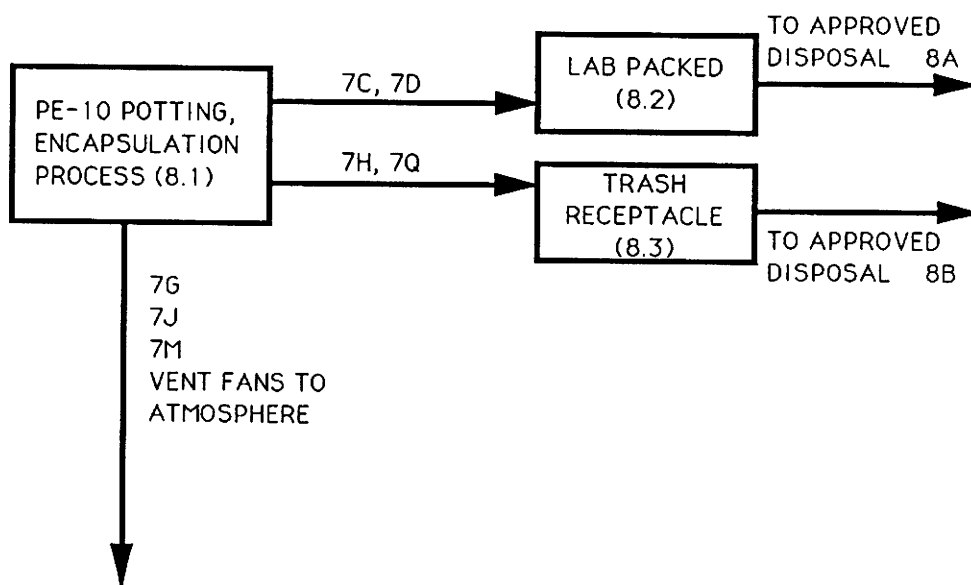
7.06 continued below

☐ Mark (X) this box if you attach a continuation sheet.

PART A RESIDUAL TREATMENT PROCESS DESCRIPTION

8.01 In accordance with the instructions, provide a residual treatment block flow diagram which describes the treatment process used for residuals identified in question 7.01
CBI

☐ Process type Potting, Encapsulation PE-10

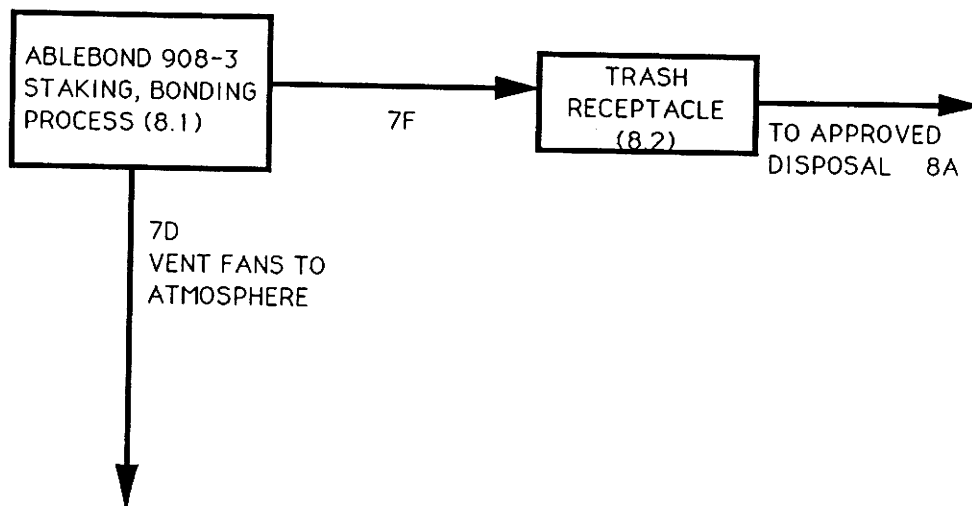


☒ Mark (X) this box if you attach a continuation sheet.

PART A RESIDUAL TREATMENT PROCESS DESCRIPTION

8.01 In accordance with the instructions, provide a residual treatment block flow diagram which describes the treatment process used for residuals identified in question 7.0
CBI

☐ Process type Staking, Bonding 908-3



☐ Mark (X) this box if you attach a continuation sheet.

PART B RESIDUAL GENERATION AND CHARACTERIZATION

8.05 Characterize each process stream identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the instructions for further explanation and an example.)

☐ Process type Potting, Encapsulation PE-10

a. b. c. d. e. f. g.

Stream ID Code	Type of Hazardous Waste ¹	Physical State of Residual ²	Known Compounds ³	Concentrations (% or ppm) ^{4,5,6}	Other Expected Compounds	Estimated Concentrations (% or ppm)
<u>7C</u>	<u>R</u>	<u>OL(>300°F)</u>	<u>TDI*</u>	<u>60%</u>	<u>NA</u>	<u>NA</u>
			<u>TDI Prepolymer</u>	<u>40%</u>		
<u>7D</u>	<u>R</u>	<u>OL(>374°F)</u>	<u>Polyols</u>	<u>UK</u>	<u>NA</u>	<u>NA</u>
			<u>Surfactants</u>	<u>UK</u>		
			<u>Catalysts</u>	<u>UK</u>		
			<u>blowing agents</u>	<u>UK (from MSDS)</u>		
<u>7G, 7J</u>	<u>**</u>	<u>GU</u>	<u>Air</u>	<u>>99.99998%</u>	<u>NA</u>	<u>NA</u>
			<u>TDI</u>	<u><0.00001%</u>		
			<u>Blowing Agents</u>	<u><0.00001%</u>		
<u>7M</u>	<u>**</u>	<u>GU</u>	<u>Air</u>	<u>>99.99998%</u>		
			<u>TDI</u>	<u><0.00001%</u>		
			<u>Blowing Agent</u>	<u><0.00001%</u>		

* from MSDS and phone conversation with company representative

8.05 continued below

** Not a hazardous waste

☒ Mark (X) this box if you attach a continuation sheet.

PART B RESIDUAL GENERATION AND CHARACTERIZATION

8.05 Characterize each process stream identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the instructions for further explanation and an example.)

() Process type Staking, Bonding 908-3

a. b. c. d. e. f. g.

[illegible]

* Not a hazardous waste

8.05 continued below

☐ Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

¹Use the following codes to designate the type of hazardous waste:

I = Ignitable
C = Corrosive
R = Reactive
E = EP toxic
T = Toxic
H = Acutely hazardous

²Use the following codes to designate the physical state of the residual:

GC = Gas (condensable at ambient temperature and pressure)
GU = Gas (uncondensable at ambient temperature and pressure)
SO = Solid
SY = Sludge or slurry
AL = Aqueous liquid
OL = Organic liquid
IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

8.05 continued below

☐ Mark (X) this box if you attach a continuation sheet.

8.06 Characterize each process stream identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the instructions for further explanation and an example.)

CBI

☐ Process type Potting, Encapsulation PE-10

a.	b.	c.	d.	e.		f.	g.
Stream ID Code	Waste Description Code ¹	Management Method Code ²	Residual Quantities (kg/yr)	Management of Residual (%)		Costs for Off-Site Management (per kg)	Changes in Management Methods
				On-Site	Off-Site		
<u>7C</u>	<u>B67</u>	<u>1A</u>	<u>19.5</u>	<u>100</u>	<u>-</u>	<u>-</u>	<u>none</u>
		<u>1ST</u>	<u>19.5</u>	<u>-</u>	<u>100</u>	<u>5.57*</u>	<u>none</u>
		<u>3I</u>	<u>19.5</u>	<u>-</u>	<u>100</u>	<u>-</u>	<u>none</u>
<u>7D</u>	<u>B67</u>	<u>1A</u>	<u>19.7</u>	<u>100</u>	<u>-</u>	<u>-</u>	<u>none</u>
		<u>1ST</u>	<u>19.7</u>	<u>-</u>	<u>100</u>	<u>5.57*</u>	<u>none</u>
		<u>3I</u>	<u>19.7</u>	<u>-</u>	<u>100</u>	<u>-</u>	<u>none</u>
<u>7H</u>	<u>B82</u>	<u>1D</u>	<u>0.03</u>	<u>-</u>	<u>100</u>	<u>\$0.04</u>	<u>none</u>
<u>7Q</u>	<u>B82</u>	<u>1D</u>	<u>0.004</u>	<u>-</u>	<u>100</u>	<u>\$0.04</u>	<u>none</u>

* \$5.57/Kg includes cost of container storage and incineration

¹ Use the codes provided in Exhibit 8-1 to designate the waste descriptions

² Use the codes provided in Exhibit 8-2 to designate the management methods

☒ Mark (X) this box if you attach a continuation sheet.

8.06 Characterize each process stream identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the instructions for further explanation and an example.)

CBI

☐ Process type Boiling, Encapsulation PE-10

a.	b.	c.	d.	e.		f.	g.
Stream ID Code	Waste Description Code ¹	Management Method Code ²	Residual Quantities (kg/yr)	Management of Residual (%)		Costs for Off-Site Management (per kg)	Changes in Management Methods
				On-Site	Off-Site		
<u>7G</u>	<u>B57</u>	<u>M5a</u>	<u>0.003</u>	<u>NA*</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>7J</u>	<u>B57</u>	<u>M5a</u>	<u>0.003</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>7M</u>	<u>B57</u>	<u>M5a</u>	<u>0.0001</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

* Not Applicable

¹Use the codes provided in Exhibit 8-1 to designate the waste descriptions

²Use the codes provided in Exhibit 8-2 to designate the management methods

☒ Mark (X) this box if you attach a continuation sheet.

CBI

a.	b.	c.	d.	e.		f.	g.
Stream ID Code	Waste Description Code ¹	Management Method Code ²	Residual Quantities (kg/yr)	Management of Residual (%)		Costs for Off-Site Management (per kg)	Changes in Management Methods
				On-Site	Off-Site		
7E	B 82	10	0.03	0	100	\$0.04	None

70	B57	M5a	0.0000%	NA*	NA	NA	NA
----	-----	-----	---------	-----	----	----	----

* NA means Not Applicable

²Use the codes provided in Exhibit 8-2 to designate the management methods

58

8.22 Describe the combustion chamber design parameters for each of the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

☐

Not Required

Incinerator	Combustion Chamber Temperature (°C)		Location of Temperature Monitor		Residence Time In Combustion Chamber (seconds)	
	Primary	Secondary	Primary	Secondary	Primary	Secondary
1	—	—	—	—	—	—
2	—	—	—	—	—	—
3	—	—	—	—	—	—

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

8.23 Complete the following table for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

☐

Not Applicable

Incinerator	Air Pollution Control Device ¹	Types of Emissions Data Available
1	—	—
2	—	—
3	—	—

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Use the following codes to designate the air pollution control device:

S = Scrubber (include type of scrubber in parenthesis)

E = Electrostatic precipitator

O = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 9 WORKER EXPOSURE

General Instructions:

Questions 9.03-9.25 apply only to those processes and workers involved in manufacturing or processing the listed substance. Do not include workers involved in residual waste treatment unless they are involved in this treatment process on a regular basis (i.e., exclude maintenance workers, construction workers, etc.).

☐ Mark (X) this box if you attach a continuation sheet.

PART A EMPLOYMENT AND POTENTIAL EXPOSURE PROFILE

9.01 Mark (X) the appropriate column to indicate whether your company maintains records on the following data elements for hourly and salaried workers. Specify for each data element the year in which you began maintaining records and the number of years the records for that data element are maintained. (Refer to the instructions for further explanation and an example.)

CBI
[]

Data Element	Data are Maintained for:		Year in Which Data Collection Began	Number of Years Records Are Maintained
	Hourly Workers	Salaried Workers		
Date of hire	X	X	1956	*
Age at hire	X	X	1956	*
Work history of individual before employment at your facility	UK	UK	UK	UK
Sex	X	X	1956	*
Race	X	X	1956	*
Job titles	X	X	1956	*
Start date for each job title	X	X	1956	*
End date for each job title	X	X	1956	*
Work area industrial hygiene monitoring data	X	X	1985	*
Personal employee monitoring data	UK	UK	UK	UK
Employee medical history	X	X	1956	*
Employee smoking history	UK	UK	UK	UK
Accident history	X	X	1956	*
Retirement date	X	X	1956	*
Termination date	X	X	1956	*
Vital status of retirees	X	X	1956	*
Cause of death data	X	X	1956	*

[] Mark (X) this box if you attach a continuation sheet.

*Records are maintained indefinitely on all employees even if retired or deceased.

9.02 In accordance with the instructions, complete the following table for each activity in which you engage.

CBI

☐

a.	b.	c.	d.	e.
Activity	Process Category	Yearly Quantity (kg)	Total Workers	Total Worker-Hours
Manufacture of the listed substance	Enclosed	0	0	0
	Controlled Release	0	0	0
	Open	0	0	0
On-site use as reactant	Enclosed	0	0	0
	Controlled Release	1.3	UK	8 1/4
	Open	1.3	UK	2 1/4
On-site use as nonreactant	Enclosed	0	0	0
	Controlled Release	0	0	0
	Open	0	0	0
On-site preparation of products	Enclosed	0	0	0
	Controlled Release	0	0	0
	Open	0	0	0

☐ Mark (X) this box if you attach a continuation sheet.

9.03 Provide a descriptive job title for each labor category at your facility that encompasses workers who may potentially come in contact with or be exposed to the listed substance.

CBI

☐

Labor Category

Descriptive Job Title

A

PRODUCTION ASSEMBLER

B

PROCESS TECHNICIAN

C

D

E

F

G

H

I

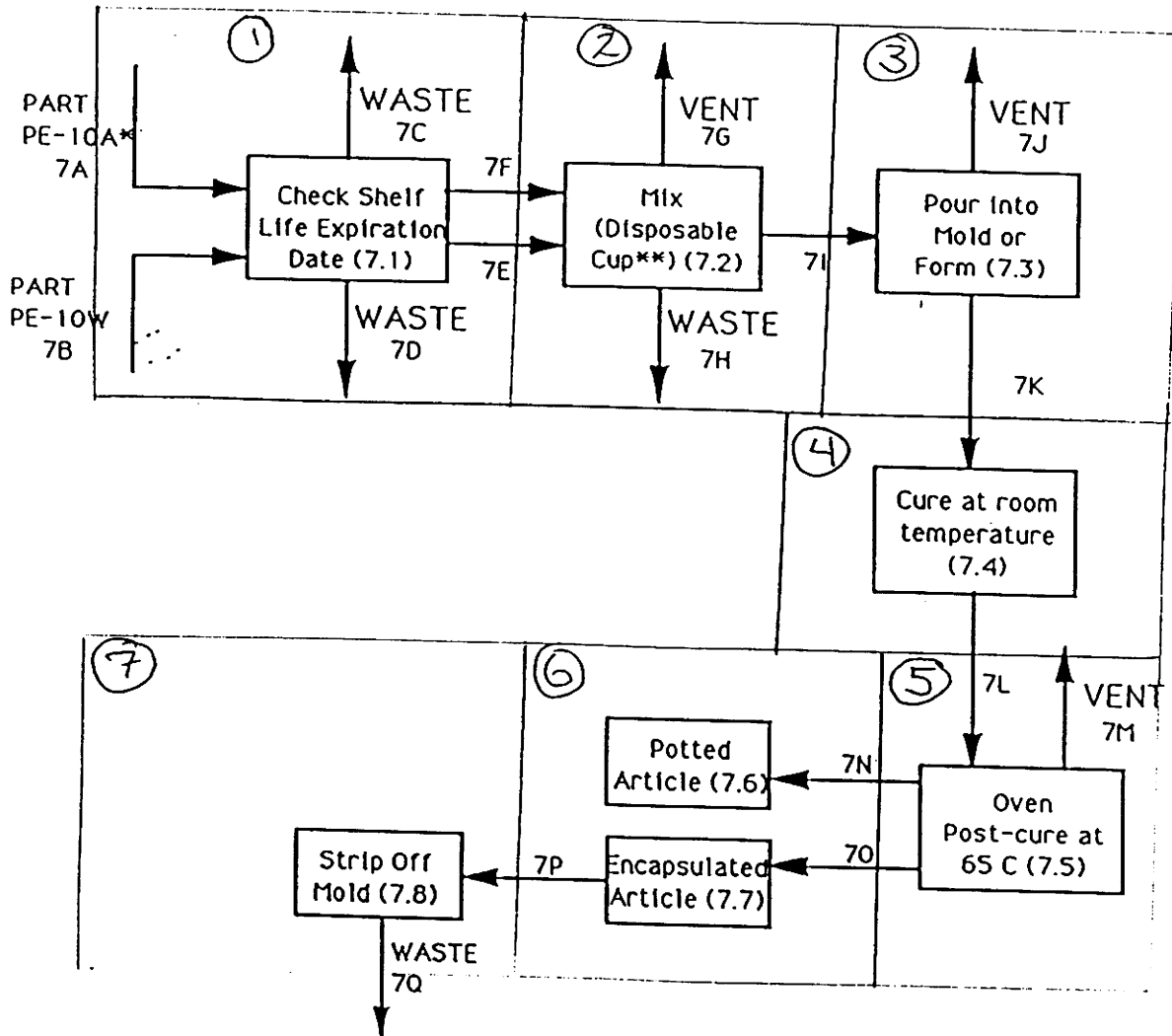
J

☐ Mark (X) this box if you attach a continuation sheet.

9.04 In accordance with the instructions, provide your process block flow diagram(s) and indicate associated work areas.

CBI

[] Process type POTTING & ENCAPSULATION PE-10



EMISSIONS
7E, 7H MIXING VENTS
7K OVEN VENT

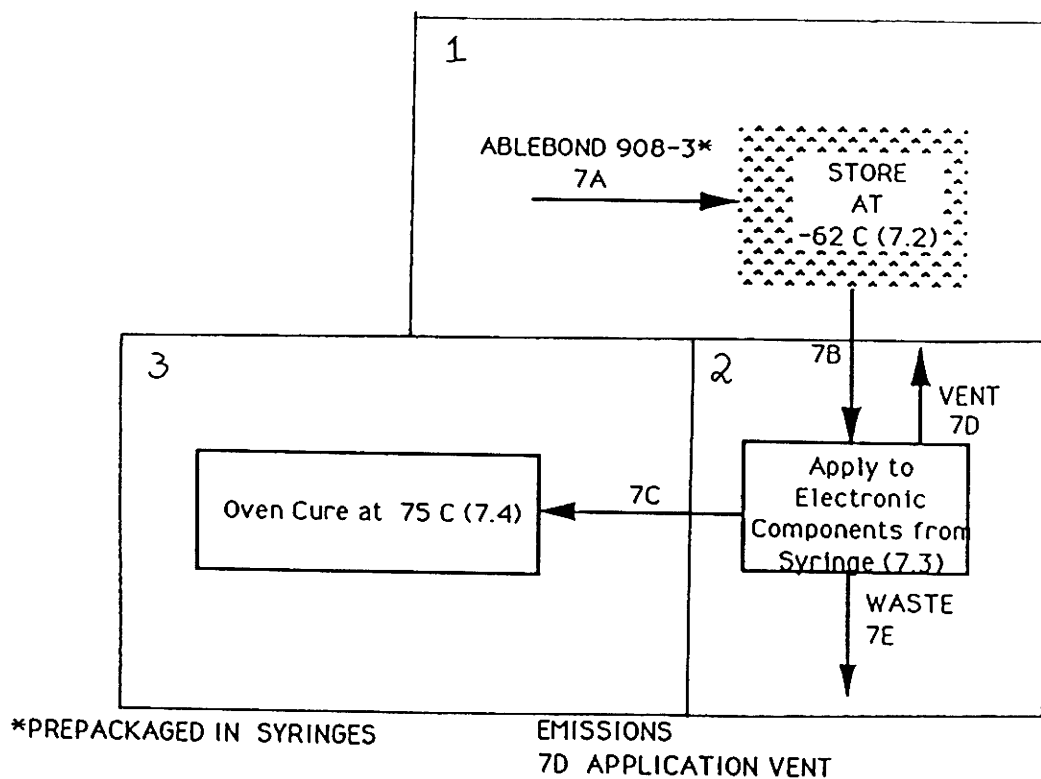
* CONTAINS TDI
** TIN FOIL OR PLASTIC
(ABOUT 150 GRAMS)

☒ Mark (X) this box if you attach a continuation sheet.

9.04 In accordance with the instructions, provide your process block flow diagram(s) and indicate associated work areas.

CBI

☒ Process type STAKING AND BONDING (ABLEBOND 908.3)



☐ Mark (X) this box if you attach a continuation sheet.

9.05 Describe the various work area(s) shown in question 9.04 that encompass workers who may potentially come in contact with or be exposed to the listed substance. Add any additional areas not shown in the process block flow diagram in question 7.01 or 7.02. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type Potting, Encapsulation PE-10

Work Area ID

Description of Work Areas and Worker Activities

- | | |
|----|---|
| 1 | <u>Receipt and Storage</u> |
| 2 | <u>Assembler mixes material</u> |
| 3 | <u>Assembler pours into mold or form</u> |
| 4 | <u>Cure at Room Temperature</u> |
| 5 | <u>Assembler places/removes part from cure oven</u> |
| 6 | <u>Article Inspected</u> |
| 7 | <u>Remove Mold</u> |
| 8 | |
| 9 | |
| 10 | |

☒ Mark (X) this box if you attach a continuation sheet.

9.05 Describe the various work area(s) shown in question 9.04 that encompass workers who may potentially come in contact with or be exposed to the listed substance. Add any additional areas not shown in the process block flow diagram in question 7.01 or 7.02. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type Staking & Bonding (Ablebond 908-3)

Work Area ID

Description of Work Areas and Worker Activities

1	<u>Receipt and Storage</u>
2	<u>Production Assembler Uses Compound to stake/bond</u>
3	<u>Oven Cure (Worker places and removes component from oven)</u>
4	
5	
6	
7	
8	
9	
10	

☐ Mark (X) this box if you attach a continuation sheet.

9.06 Complete the following table for each work area identified in question 9.05, and for each labor category at your facility that encompasses workers who may potentially come in contact with or be exposed to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type POTTING AND ENCAPSULATION PE-10

Work area Z → G

Labor Category	Number of Workers Exposed	Mode of Exposure (e.g., direct skin contact)	Physical State of Listed Substance ¹	Average Length of Exposure Per Day ²	Number of Days per Year Exposed
<u>A</u>	<u>1</u>	<u>SKIN/INHALATION</u>	<u>OL</u>	<u>A</u>	<u>16</u>
<u>B</u>	<u>1</u>	<u>SKIN/INHALATION</u>	<u>OL</u>	<u>A</u>	<u>16</u>

¹Use the following codes to designate the physical state of the listed substance at the point of exposure:

GC = Gas (condensable at ambient temperature and pressure)
 GU = Gas (uncondensable at ambient temperature and pressure; includes fumes, vapors, etc.)
 SO = Solid

SY = Sludge or slurry
 AL = Aqueous liquid
 OL = Organic liquid
 IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

²Use the following codes to designate average length of exposure per day:

A = 15 minutes or less
 B = Greater than 15 minutes, but not exceeding 1 hour
 C = Greater than one hour, but not exceeding 2 hours

D = Greater than 2 hours, but not exceeding 4 hours
 E = Greater than 4 hours, but not exceeding 8 hours
 F = Greater than 8 hours

☒ Mark (X) this box if you attach a continuation sheet.

9.06 Complete the following table for each work area identified in question 9.05, and for each labor category at your facility that encompasses workers who may potentially come in contact with or be exposed to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type STAKING AND BONDING (ABELBOND 90X-3)

Work area 2-3

Labor Category	Number of Workers Exposed	Mode of Exposure (e.g., direct skin contact)	Physical State of Listed Substance ¹	Average Length of Exposure Per Day ²	Number of Days per Year Exposed
<u>A</u>	<u>2</u>	<u>SKIN, INHALATION</u>	<u>OL</u>	<u>A</u>	<u>4</u>

¹Use the following codes to designate the physical state of the listed substance at the point of exposure:

GC = Gas (condensable at ambient temperature and pressure)
 GU = Gas (uncondensable at ambient temperature and pressure; includes fumes, vapors, etc.)
 SO = Solid

SY = Sludge or slurry
 AL = Aqueous liquid
 OL = Organic liquid
 IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

²Use the following codes to designate average length of exposure per day:

A = 15 minutes or less
 B = Greater than 15 minutes, but not exceeding 1 hour
 C = Greater than one hour, but not exceeding 2 hours

D = Greater than 2 hours, but not exceeding 4 hours
 E = Greater than 4 hours, but not exceeding 8 hours
 F = Greater than 8 hours

☒ Mark (X) this box if you attach a continuation sheet.

9.07 For each labor category represented in question 9.06, indicate the 8-hour Time Weighted Average (TWA) exposure levels and the 15-minute peak exposure levels. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type POTTING AND ENCAPSULATION PE-10

Work area Z-6

Labor Category	8-hour TWA Exposure Level (ppm, mg/m ³ , other-specify)	15-Minute Peak Exposure Level (ppm, mg/m ³ , other-specify)
<u>A</u>	<u>UK</u>	<u>UK</u>

☒ Mark (X) this box if you attach a continuation sheet.

9.07 For each labor category represented in question 9.06, indicate the 8-hour Time Weighted Average (TWA) exposure levels and the 15-minute peak exposure levels. Photocopy this question and complete it separately for each process type and work area.

CBI

[] Process type STARTING & BONDING (ASELOND 908-3)

Work area 2, 3

[illegible]

☐ Mark (X) this box if you attach a continuation sheet.

PART B WORK PLACE MONITORING PROGRAM

9.08 If you monitor worker exposure to the listed substance, complete the following table.

CBI

Not Sampled

[]

Sample/Test	Work Area ID	Testing Frequency (per year)	Number of Samples (per test)	Who Samples ¹	Analyzed In-House (Y/N)	Number of Years Records Maintained
Personal breathing zone	NA*	NA	NA	NA	NA	NA
General work area (air)	NA	NA	NA	NA	NA	NA
Wipe samples	NA	NA	NA	NA	NA	NA
Adhesive patches	NA	NA	NA	NA	NA	NA
Blood samples	NA	NA	NA	NA	NA	NA
Urine samples	NA	NA	NA	NA	NA	NA
Respiratory samples	NA	NA	NA	NA	NA	NA
Allergy tests	NA	NA	NA	NA	NA	NA
Other (specify)	NA	NA	NA	NA	NA	NA
Other (specify)	NA	NA	NA	NA	NA	NA
Other (specify)	NA	NA	NA	NA	NA	NA

* Not Applicable

¹Use the following codes to designate who takes the monitoring samples:

A = Plant industrial hygienist

B = Insurance carrier

C = OSHA consultant

D = Other (specify) _____

[] Mark (X) this box if you attach a continuation sheet.

9.09 For each sample type identified in question 9.08, describe the type of sampling and analytical methodology used for each type of sample.

Sample Type	Sampling and Analytical Methodology
NA	

9.10 If you conduct personal and/or ambient air monitoring for the listed substance, specify the following information for each equipment type used.

Equipment Type ¹	Detection Limit ²	Manufacturer	Averaging Time (hr)	Model Number
NA				

¹Use the following codes to designate personal air monitoring equipment types:

- A = Passive dosimeter
- B = Detector tube
- C = Charcoal filtration tube with pump
- D = Other (specify) _____

Use the following codes to designate ambient air monitoring equipment types:

- E = Stationary monitors located within work area
- F = Stationary monitors located within facility
- G = Stationary monitors located at plant boundary
- H = Mobile monitoring equipment (specify) _____
- I = Other (specify) _____

²Use the following codes to designate detection limit units:

- A = ppm
- B = Fibers/cubic centimeter (f/cc)
- C = Micrograms/cubic meter (μm^3)

☐ Mark (X) this box if you attach a continuation sheet.

9.11 If you conduct routine medical tests for monitoring the health effects of exposure to the listed substance, specify the type and frequency of the tests.

CBI

<input type="checkbox"/>	<u>Test Description</u>	<u>Frequency</u> (weekly, monthly, yearly, etc.)
	NA	NA

☐ Mark (X) this box if you attach a continuation sheet.

PART C ENGINEERING CONTROLS

9.12 Describe the engineering controls that you use to reduce or eliminate worker exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type Putting, Encapsulation PE-10
 Work area Z-7

<u>Engineering Controls</u>	<u>Used (Y/N)</u>	<u>Year Installed</u>	<u>Upgraded (Y/N)</u>	<u>Year Upgraded</u>
Ventilation:				
Local exhaust	<u>Y</u>	<u>1978</u>	<u>Y</u>	<u>1988</u>
General dilution	<u>Y</u>	<u>1978</u>	<u>Y</u>	<u>1988</u>
Other (specify) _____	_____	_____	_____	_____
Vessel emission controls	<u>Y</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Mechanical loading or packaging equipment	_____	_____	_____	_____
Other (specify) _____	_____	_____	_____	_____

☒ Mark (X) this box if you attach a continuation sheet.

PART C ENGINEERING CONTROLS

9.12 Describe the engineering controls that you use to reduce or eliminate worker exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

[] Process type Staking, Bonding (Ablebond 908-3)
Work area 2-3

<u>Engineering Controls</u>	<u>Used (Y/N)</u>	<u>Year Installed</u>	<u>Upgraded (Y/N)</u>	<u>Year Upgraded</u>
Ventilation:				
Local exhaust	<u>Y</u>	<u>1978</u>	<u>N</u>	<u>NA</u>
General dilution	<u>Y</u>	<u>1978</u>	<u>Y</u>	<u>1988</u>
Other (specify) _____	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Vessel emission controls	<u>Y</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Mechanical loading or packaging equipment	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Other (specify) _____	<u> </u>	<u> </u>	<u> </u>	<u> </u>

☐ Mark (X) this box if you attach a continuation sheet.

9.13 Describe all equipment or process modifications you have made within the 3 years prior to the reporting year that have resulted in a reduction of worker exposure to the listed substance. For each equipment or process modification described, state the percentage reduction in exposure that resulted. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type NA

Work area

Equipment or Process Modification	Reduction in Worker Exposure Per Year (%)
<u>NA</u>	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.

PART D PERSONAL PROTECTIVE AND SAFETY EQUIPMENT

9.14 Describe the personal protective and safety equipment that your workers wear or use in each work area in order to reduce or eliminate their exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type Potting, Encapsulation, PE-10
Work area 2-6

<u>Equipment Types</u>	<u>Wear or Use (Y/N)</u>
Respirators	<u>N</u>
Safety goggles/glasses	<u>Y</u>
Face shields	<u>Y</u>
Coveralls	<u>N</u>
Bib aprons	<u>Y</u>
Chemical-resistant gloves	<u>Y</u>
Other (specify)	
_____	_____
_____	_____

☒ Mark (X) this box if you attach a continuation sheet.

PART D PERSONAL PROTECTIVE AND SAFETY EQUIPMENT

9.14 Describe the personal protective and safety equipment that your workers wear or use in each work area in order to reduce or eliminate their exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type Staking & Bonding (Ablebond 908-3)
Work area 2-3

<u>Equipment Types</u>	<u>Wear or Use (Y/N)</u>
Respirators	<u>N</u>
Safety goggles/glasses	<u>Y</u>
Face shields	<u>N</u>
Coveralls	<u>N</u>
Bib aprons	<u>N</u>
Chemical-resistant gloves	<u>Y</u>
Other (specify)	
_____	_____
_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

9.15 If workers use respirators when working with the listed substance, specify for each process type, the work areas where the respirators are used, the type of respirators used, the average usage, whether or not the respirators were fit tested, and the type and frequency of the fit tests. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type NA

Work Area	Respirator Type	Average Usage	Fit Tested (Y/N)	Type of Fit Test ²	Frequency of Fit Tests (per year)
	<u>NA</u>				

¹Use the following codes to designate average usage:

- A = Daily
- B = Weekly
- C = Monthly
- D = Once a year
- E = Other (specify) _____

²Use the following codes to designate the type of fit test:

- QL = Qualitative
- QT = Quantitative

☐ Mark (X) this box if you attach a continuation sheet.

PART E WORK PRACTICES

- 9.19 Describe all of the work practices and administrative controls used to reduce or eliminate worker exposure to the listed substance (e.g., restrict entrance only to authorized workers, mark areas with warning signs, insure worker detection and monitoring practices, provide worker training programs, etc.). Photocopy this question and complete it separately for each process type and work area.

CBI

☐

Process type Potting, Encapsulation PE-10

Work area 1-6

Restrict Access to Authorized Workers
Insure Worker Detection & Monitoring Practices
Worker Training Programs.
Personal Protective Equipment

- 9.20 Indicate (X) how often you perform each housekeeping task used to clean up routine leaks or spills of the listed substance. Photocopy this question and complete it separately for each process type and work area.

Process type

Work area

<u>Housekeeping Tasks</u>	<u>Less Than Once Per Day</u>	<u>1-2 Times Per Day</u>	<u>3-4 Times Per Day</u>	<u>More Than 4 Times Per Day</u>
Sweeping	_____	_____	_____	_____
Vacuuming	_____	_____	_____	_____
Water flushing of floors	_____	_____	_____	_____
Other (specify) <u>Scrub with</u> <u>methygl chloroform</u>	_____	<u>X</u>	_____	_____

☒ Mark (X) this box if you attach a continuation sheet.

PART E WORK PRACTICES

- 9.19 Describe all of the work practices and administrative controls used to reduce or eliminate worker exposure to the listed substance (e.g., restrict entrance only to authorized workers, mark areas with warning signs, insure worker detection and monitoring practices, provide worker training programs, etc.). Photocopy this question and complete it separately for each process type and work area.

CBI

☐

Process type Staking & Bonding (Ableband 908-3)
Work area 1-3

Restrict Entrance only to Authorized Workers
Insure Worker Detection & Monitoring Practices
Worker Training Programs
Personal Protective Equipment

- 9.20 Indicate (X) how often you perform each housekeeping task used to clean up routine leaks or spills of the listed substance. Photocopy this question and complete it separately for each process type and work area.

Process type

Work area

<u>Housekeeping Tasks</u>	<u>Less Than Once Per Day</u>	<u>1-2 Times Per Day</u>	<u>3-4 Times Per Day</u>	<u>More Than 4 Times Per Day</u>
Sweeping	_____	_____	_____	_____
Vacuuming	_____	_____	_____	_____
Water flushing of floors	_____	_____	_____	_____
Other (specify)	_____	_____	_____	_____
<u>Swab with methyl chloroform</u>	_____	<u>X</u>	_____	_____

☐ Mark (X) this box if you attach a continuation sheet.

9.21 Do you have a written medical action plan for responding to routine or emergency exposure to the listed substance?

Routine exposure

Yes 1

☒ No 2

Emergency exposure

Yes 1

☒ No 2

If yes, where are copies of the plan maintained?

Routine exposure: _____

Emergency exposure: _____

9.22 Do you have a written leak and spill cleanup plan that addresses the listed substance? Circle the appropriate response.

☒ Yes 1

No 2

If yes, where are copies of the plan maintained? ENVIRONMENTAL / SAFETY OFFICE

Has this plan been coordinated with state or local government response organizations? EMERGENCY RESPONSE TEAMS
Circle the appropriate response.

☒ Yes 1

No 2

9.23 Who is responsible for monitoring worker safety at your facility? Circle the appropriate response.

Plant safety specialist 1

Insurance carrier 2

OSHA consultant 3

Other (specify) INDUSTRIAL HYGIENISTS (4)

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 10 ENVIRONMENTAL RELEASE

General Instructions:

Complete Part E (questions 10.23-10.35) for each non-routine release involving the listed substance that occurred during the reporting year. Report on all releases that are equal to or greater than the listed substance's reportable quantity value, RQ, unless the release is federally permitted as defined in 42 U.S.C. 9601, or is specifically excluded under the definition of release as defined in 40 CFR 302.3(22). Reportable quantities are codified in 40 CFR Part 302. If the listed substance is not a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and, thus, does not have an RQ, then report releases that exceed 2,270 kg. If such a substance however, is designated as a CERCLA hazardous substance, then report those releases that are equal to or greater than the RQ. The facility may have answered these questions or similar questions under the Agency's Accidental Release Information Program and may already have this information readily available. Assign a number to each release and use this number throughout this part to identify the release. Releases over more than a 24-hour period are not single releases, i.e., the release of a chemical substance equal to or greater than an RQ must be reported as a separate release for each 24-hour period the release exceeds the RQ.

For questions 10.25-10.35, answer the questions for each release identified in question 10.23. Photocopy these questions and complete them separately for each release.

PART A GENERAL INFORMATION

10.01 Where is your facility located? Circle all appropriate responses.

CBI

- ☐ Industrial area 1
- Urban area 2
- Residential area 3
- Agricultural area 4
- Rural area 5
- Adjacent to a park or a recreational area 6
- Within 1 mile of a navigable waterway 7
- Within 1 mile of a school, university, hospital, or nursing home facility 8
- Within 1 mile of a non-navigable waterway 9
- Other (specify) _____ 10

☐ Mark (X) this box if you attach a continuation sheet.

- 10.02 Specify the exact location of your facility (from central point where process unit is located) in terms of latitude and longitude or Universal Transverse Mercader (UTM) coordinates.

Latitude 33 ° 21 ' 12 "

Longitude 111 ° 53 ' 24 "

UTM coordinates Zone _____, Northing _____, Easting _____

- 10.03 If you monitor meteorological conditions in the vicinity of your facility, provide the following information. *Not Required*

Average annual precipitation — inches/year

Predominant wind direction —

- 10.04 Indicate the depth to groundwater below your facility. *Not Required*

Depth to groundwater — meters

- 10.05 For each on-site activity listed, indicate (Y/N/NA) all routine releases of the listed substance to the environment. (Refer to the instructions for a definition of CBI Y, N, and NA.)

☐

On-Site Activity

Environmental Release

	Air	Water	Land
Manufacturing	<u>NA</u>	<u>NA</u>	<u>NA</u>
Importing	<u>NA</u>	<u>NA</u>	<u>NA</u>
Processing	<u>Y</u>	<u>N</u>	<u>N</u>
Otherwise used	<u>NA</u>	<u>NA</u>	<u>NA</u>
Product or residual storage	<u>N</u>	<u>N</u>	<u>N</u>
Disposal	<u>NA</u>	<u>NA</u>	<u>NA</u>
Transport	<u>NA</u>	<u>NA</u>	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.

10.06 Provide the following information for the listed substance and specify the level of precision for each item. (Refer to the instructions for further explanation and an example.)

CBI

☐

Quantity discharged to the air 0.0062 kg/yr \pm UK %
Quantity discharged in wastewaters 0 kg/yr \pm 0 %
Quantity managed as other waste in on-site
treatment, storage, or disposal units 0 kg/yr \pm 0 %
Quantity managed as other waste in off-site
treatment, storage, or disposal units 10.9 kg/yr \pm UK %

☐ Mark (X) this box if you attach a continuation sheet.

5

10.08 Describe the control technologies used to minimize release of the listed substance for each process stream containing the listed substance as identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each process type.

CBI

☐ Process type All

<u>Stream ID Code</u>	<u>Control Technology</u>	<u>Percent Efficiency</u>
<u>All Vent</u>	<u>NONE</u>	<u>0</u>
<u>Streams</u>		

☐ Mark (X) this box if you attach a continuation sheet.

PART B RELEASE TO AIR

- 10.09 Point Source Emissions -- Identify each emission point source containing the listed substance in terms of a Stream ID Code as identified in your process block or residual treatment block flow diagram(s), and provide a description of each point source. Do not include raw material and product storage vents, or fugitive emission sources (e.g., equipment leaks). Photocopy this question and complete it separately for each process type.

CBI

☐

Process type Potting, Encapsulation PE-10

Point Source
ID Code

Description of Emission Point Source

7G

Mixing Vent

7J

Pouring Vent

7M

Oven Vent



Mark (X) this box if you attach a continuation sheet.

PART B RELEASE TO AIR

- 10.09 Point Source Emissions -- Identify each emission point source containing the listed substance in terms of a Stream ID Code as identified in your process block or residual treatment block flow diagram(s), and provide a description of each point source. Do not include raw material and product storage vents, or fugitive emission sources (e.g., equipment leaks). Photocopy this question and complete it separately for each process type.

CBI

☐

Process type

Bonding, Staking 908-3

Point Source
ID Code

Description of Emission Point Source

7D

Application Vent

☒ Mark (X) this box if you attach a continuation sheet.

☒ Mark (X) this box if you attach a continuation sheet.

10.10 Emission Characteristics - Characterize the emissions for each Point Source ID Code identified in question 10.09 by completing the following table.

☒

Point Source ID Code	Physical State ¹	Average Emissions (kg/day)	Frequency ² (days/yr)	Duration ³ (min/day)	Average Emission Factor ⁴	Maximum Emission Rate (kg/min)	Maximum Emission Rate Frequency (events/yr)	Maximum Emission Rate Duration (min/event)
7G	V	0.00009	32	0.5	—*	UK	UK	UK
7J	V	0.00009	32	0.3	—	UK	UK	UK
7M	V	0.000003	32	90	—	UK	UK	UK

¹Use the following codes to designate physical state at the point of release:
G = Gas; V = Vapor; P = Particulate; A = Aerosol; O = Other (specify) _____

²Frequency of emission at any level of emission

³Duration of emission at any level of emission

⁴Average Emission Factor — Provide estimated (\pm 25 percent) emission factor (kg of emission per kg of production of listed substance)

* The listed substance is not produced.

☐ Mark (X) this box if you attach a continuation sheet.

10.10 Emission Characteristics -- Characterize the emissions for each Point Source ID Code identified in question 10.09 by completing the following table.

CRI

Point Source ID Code	Physical State ¹	Average Emissions (kg/day)	Frequency ² (days/yr)	Duration ³ (min/day)	Average Emission Factor ⁴	Maximum Emission Rate (kg/min)	Maximum Emission Rate Frequency (events/yr)	Maximum Emission Rate Duration (min/event)
70	V	0.000015	4	5	—*	UK	UK	UK

¹Use the following codes to designate physical state at the point of release:
G = Gas; V = Vapor; P = Particulate; A = Aerosol; O = Other (specify) _____

²Frequency of emission at any level of emission

³Duration of emission at any level of emission

⁴Average Emission Factor — Provide estimated (\pm 25 percent) emission factor (kg of emission per kg of production of listed substance)

* The listed substance is not produced.

10.11 Stack Parameters -- Identify the stack parameters for each Point Source ID Code identified in question 10.09 by completing the following table.

CBI Potting, Encapsulation PE-10

[]

Point Source ID Code	Stack Height(m)	Stack Inner Diameter (at outlet) (m)	Exhaust Temperature (°C)	Emission Exit Velocity (m/sec)	Building Height(m) ¹	Building Width(m) ²	Vent, Type ³
7G	9.4*	0.36	25	12.7	8.2	122	V
7J	9.4*	0.36	25	12.7	8.2	122	V
7H	9.4*	0.36	25	12.7	8.2	122	V

* Includes height of the building

¹Height of attached or adjacent building

²Width of attached or adjacent building

³Use the following codes to designate vent type:

H = Horizontal

V = Vertical

☒ Mark (X) this box if you attach a continuation sheet.

10.11 Stack Parameters -- Identify the stack parameters for each Point Source ID Code identified in question 10.09 by completing the following table.

CBI Staking, Bonding 908-3

☐

Point Source ID Code	Stack Height(m)	Stack Inner Diameter (at outlet) (m)	Exhaust Temperature (°C)	Emission Exit Velocity (m/sec)	Building Height(m) ¹	Building Width(m) ²	Vent, Type ³
<u>70</u>	<u>9.4*</u>	<u>0.36</u>	<u>25</u>	<u>12.7</u>	<u>8.2</u>	<u>122</u>	<u>V</u>

* Includes height of the building

¹Height of attached or adjacent building

²Width of attached or adjacent building

³Use the following codes to designate vent type:

H = Horizontal

V = Vertical

☐ Mark (X) this box if you attach a continuation sheet.

10.12 If the listed substance is emitted in particulate form, indicate the particle size distribution for each Point Source ID Code identified in question 10.09. Photocopy this question and complete it separately for each emission point source.

CBI

☐

Point source ID code No particulate emission

Size Range (microns)

Mass Fraction (% ± % precision)

< 1
≥ 1 to < 10
≥ 10 to < 30
≥ 30 to < 50
≥ 50 to < 100
≥ 100 to < 500
≥ 500

Total = 100%

☐ Mark (X) this box if you attach a continuation sheet.

PART C FUGITIVE EMISSIONS

10.13 Equipment Leaks -- Complete the following table by providing the number of equipment types listed which are exposed to the listed substance and which are in service according to the specified weight percent of the listed substance passing through the component. Do this for each process type identified in your process block or residual treatment block flow diagram(s). Do not include equipment types that are not exposed to the listed substance. If this is a batch or intermittently operated process, give an overall percentage of time per year that the process type is exposed to the listed substance. Photocopy this question and complete it separately for each process type.

CBI

☐

Process type

*

Percentage of time per year that the listed substance is exposed to this process type

x

Number of Components in Service by Weight Percent of Listed Substance in Process Stream

Equipment Type	Less than 5%	5-10%	11-25%	26-75%	76-99%	Greater than 99%
Pump seals ¹						
Packed						
Mechanical						
Double mechanical ²						
Compressor seals ¹						
Flanges						
Valves						
Gas ³						
Liquid						
Pressure relief devices ⁴ (Gas or vapor only)						
Sample connections						
Gas						
Liquid						
Open-ended lines ⁵ (e.g., purge, vent)						
Gas						
Liquid						

*

Liquid means not applicable.

¹List the number of pump and compressor seals, rather than the number of pumps or compressors

10.13 continued on next page

☐

Mark (X) this box if you attach a continuation sheet.

10.13 (continued)

²If double mechanical seals are operated with the barrier (B) fluid at a pressure greater than the pump stuffing box pressure and/or equipped with a sensor (S) that will detect failure of the seal system, the barrier fluid system, or both, indicate with a "B" and/or an "S", respectively

³Conditions existing in the valve during normal operation

⁴Report all pressure relief devices in service, including those equipped with control devices

⁵Lines closed during normal operation that would be used during maintenance operations

10.14 Pressure Relief Devices with Controls -- Complete the following table for those pressure relief devices identified in 10.13 to indicate which pressure relief devices in service are controlled. If a pressure relief device is not controlled, enter "None" under column c.

CBI

[]

a. Number of Pressure Relief Devices +	b. Percent Chemical in Vessel ¹	c. Control Device	d. Estimated Control Efficiency ²
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

* "—" means not applicable

¹Refer to the table in question 10.13 and record the percent range given under the heading entitled "Number of Components in Service by Weight Percent of Listed Substance" (e.g., <5%, 5-10%, 11-25%, etc.)

²The EPA assigns a control efficiency of 100 percent for equipment leaks controlled with rupture discs under normal operating conditions. The EPA assigns a control efficiency of 98 percent for emissions routed to a flare under normal operating conditions

[] Mark (X) this box if you attach a continuation sheet.

10.15 Equipment Leak Detection -- If a formal leak detection and repair program is in place, complete the following table regarding those leak detection and repair procedures. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type *

Equipment Type	Leak Detection Concentration (ppm or mg/m ³) Measured at Inches from Source	Detection Device	Frequency of Leak Detection (per year)	Repairs Initiated (days after detection)	Repairs Completed (days after initiated)
Pump seals					
Packed	—	—	—	—	—
Mechanical	—	—	—	—	—
Double mechanical	—	—	—	—	—
Compressor seals	—	—	—	—	—
Flanges	—	—	—	—	—
Valves					
Gas	—	—	—	—	—
Liquid	—	—	—	—	—
Pressure relief devices (gas or vapor only)	—	—	—	—	—
Sample connections					
Gas	—	—	—	—	—
Liquid	—	—	—	—	—
Open-ended lines					
Gas	—	—	—	—	—
Liquid	—	—	—	—	—

* "—" means not applicable

¹ Use the following codes to designate detection device:

POVA = Portable organic vapor analyzer

FPM = Fixed point monitoring

0 = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

☐ Mark (X) this box if you attach a continuation sheet.

10.16 Raw Material, Intermediate and Product Storage Emissions - - Complete the following table by providing the information on each liquid raw material, intermediate, and product storage vessel containing the listed substance as identified in your process block or residual treatment block flow diagram(s). *These equipment characteristics do not apply.*

Vessel Type ¹	Floating Roof Seals ²	Composition of Stored Materials ³	Throughput (liters per year)	Vessel Filling Rate (gpm)	Vessel Filling Duration (min)	Vessel Inner Diameter (m)	Vessel Height (m)	Vessel Volume (l)	Vessel Emission Controls ⁴	Design Flow Rate ⁵	Vent Diameter (cm)	Control Efficiency (%)	Basis for Estimate ⁶
—*	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—

---* "—" means Not Applicable

¹Use the following codes to designate vessel type:

- F = Fixed roof
- CIF = Contact internal floating roof
- NCIF = Noncontact internal floating roof
- EFR = External floating roof
- P = Pressure vessel (indicate pressure rating)
- H = Horizontal
- U = Underground

²Use the following codes to designate floating roof seals:

- MS1 = Mechanical shoe, primary
- MS2 = Shoe-mounted secondary
- MS2R = Rim-mounted, secondary
- LM1 = Liquid-mounted resilient filled seal, primary
- LM2 = Rim-mounted shield
- LMW = Weather shield
- VM1 = Vapor mounted resilient filled seal, primary
- VM2 = Rim-mounted secondary
- VMW = Weather shield

³Indicate weight percent of the listed substance. Include the total volatile organic content in parenthesis

⁴Other than Floating roofs

⁵Gas/vapor flow rate the emission control device was designed to handle (specify flow rate units)

⁶Use the following codes to designate basis for estimate of control efficiency:

- C = Calculations
- S = Sampling

PART E NON-ROUTINE RELEASES

10.23 Indicate the date and time when the release occurred and when the release ceased or was stopped. If there were more than six releases, attach a continuation sheet and list all releases.

Release	Date Started	Time (am/pm)	Date Stopped	Time (am/pm)
1	— *	—	—	—
2	—	—	—	—
3	—	—	—	—
4	—	—	—	—
5	—	—	—	—
6	—	—	—	—

10.24 Specify the weather conditions at the time of each release.

Not Required

Release	Wind Speed (km/hr)	Wind Direction	Humidity (%)	Temperature (°C)	Precipitation (Y/N)
1	—	—	—	—	—
2	—	—	—	—	—
3	—	—	—	—	—
4	—	—	—	—	—
5	—	—	—	—	—
6	—	—	—	—	—

* "—" means not applicable

☐ Mark (X) this box if you attach a continuation sheet.